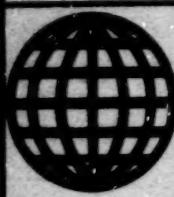


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BULGARIA

Chief of Staff Semerdzhiev Declines To Disclose Defense Figures

AU0702134989 Sofia POGLED in Bulgarian
No 6, 6 Feb 89 p 7

[Interview with Colonel General Atanas Semerdzhiev, first deputy minister of national defense and chief of the General Staff of the Bulgarian People's Army, and Colonel General Khristo Dobrev, first deputy minister of national defense, by unidentified POGLED reporter: "We Are Optimists"—in Sofia; date not given]

[Excerpts] A news conference took place in Sofia on the day the declaration of the Warsaw Pact Defense Ministers Committee was published. We addressed questions to Colonel General Atanas Semerdzhiev, first deputy minister of national defense and chief of the General Staff of the Bulgarian People's Army, and Colonel General Khristo Dobrev, first deputy minister of national defense. [passage omitted]

[POGLED] Comrade Generals, I have an easy question, because you probably will not answer it. What does the 12 percent reduction of the military budget mean? How much money is this? And if you really do not answer my question, how am I to interpret this? As a matter of tradition, security, or *glasnost*?

[Semerdzhiev] It is strange. You know that I cannot answer your question, and yet you are posing it.

[POGLED] Well, anyway...

[Semerdzhiev] ...So that your conscience is clear.... I would like to assure you that the only reason that prevents us from stating the specific figures of the military budget is the objectively existing situation that does not allow us to compare our expenditures with the expenditures of the other side. Even within the framework of the Warsaw Pact there is no uniform method of determining the military expenditures. When we overcome this issue, we will be able to announce the real defense expenditures.

I can give you only one example. The maintenance of the U.S. Air Force personnel amounts to \$69 billion. They form their army on the principle of volunteers. We pay nothing to our regular service soldiers. We ourselves take care of their food, training, and so forth. How then can we compare the military expenditures? The price of weapons, equipment, and special property varies from one fraternal country to another. Furthermore, often the indices are contradictory. This, and not our willingness or reluctance to disclose data, is the only reason that prevents us from citing specific figures.

CZECHOSLOVAKIA

Chief of Staff Vacek on Implementation of Pact Defensive Doctrine

LD0102112889 Bratislava Domestic Service
in Slovak 1730 GMT 31 Jan 89

[Report on news conference by Colonel General Miroslav Vacek, chief of the General Staff of the CSSR People's Army, by editor Jozef Knizat, from the "Magazine" program; date, place not given—recorded, with Vacek speaking in Czech]

[Text] [Knizat] Those politicians and historians who said that the USSR's historic unilateral disarmament measures, of which Comrade Gorbachev informed the UN General Assembly, would not be the last steps by the Warsaw Pact in the sphere of conventional disarmament, were right. These were followed by similar steps by the other countries in our military defensive alliance, specifically the GDR, Poland, Hungary, and the CSSR.

The publication of data on the number of armed forces and armaments of the Warsaw Pact and NATO is the latest addition to these important disarmament efforts. The cards are on the table, and this makes it possible to conduct serious talks, which so far have been blocked by the so-called numbers barrier.

Colonel General Miroslav Vacek said on the topic:

[Vacek] I think that the published data provide a clear picture, especially about the fact that in the number of armed forces and conventional arms there is, as we have often said, an approximate military equilibrium that does not give any party the chance to claim a crucial military superiority. I speak about this because by publishing the official data on our Armed Forces, we want to demonstrate goodwill to contribute to speeding up the process of creating confidence and reducing armed forces to the level of sensible sufficiency.

[Knizat] This is, I would say, the philosophy and the expression of the political approach of the Warsaw Pact member states in applying our defensive doctrine. In the case of Czechoslovakia, we must also mention historical factors.

[Vacek] Czechoslovakia has proven in its entire history that it has no interest in any power, legal, or territorial motivation, to enter into an armed conflict with any neighbor or other state. We are a small country with limited human, raw material, and energy resources and, therefore, cooperation not only with the socialist countries but with the rest of the countries of the world is necessary for us.

[Knizat] As for working out the course of the measures that Czechoslovakia put forward with the Warsaw Pact member states, Col Gen Miroslav Vacek said:

[Vacek] The individual Warsaw Pact member states worked out independently, on the basis of their position within the Warsaw Pact, what were their strategic positions, their proposals, and no one limited them. I think (?it was more a recommendation) that the numbers of personnel and the type of technologies not differ much from one country to another. These are the first steps, and they cannot be seen as a sort of political adventure. We would be poor partners in the Warsaw Pact if we did not consult each other in formulating these proposals. We have consulted each other on these issues, exchanged views, and exchanged experience. So there was a certain coordination, but not in a sense, as many people would like to think, that it was dictated to everybody how much everybody will reduce things and what they can and cannot do.

[Knizat] Miroslav Vacek then discussed the types of weaponry that will be eliminated unilaterally. His words confirm the fact that this is not obsolete military technology but rather contemporary equipment that could be used in combat, and that also could be partially utilized in the national economy.

[Vacek] The leadership of the CSSR People's Army is considering using some tank engine components as spare parts. I would like to explain this. There was a question of whether we are eliminating obsolete or modern technology. Naturally, we will not eliminate the most up-to-date equipment. I think that you would all thank us if we did. I, however, claim that we will not eliminate old equipment that can no longer be used.

We will scrap tanks of the T-54 and T-55 series—that is, contemporary tanks that could be used for military purposes under current conditions. Because most of the tanks are T-55's or updated T-54's, it will be possible to make parts from their spare components, which is something that we would like to do as a husbandry measure. We are considering the possibility of using several dozen pieces of military equipment, those with a trailer bulldozer for trash disposal, for example, in industry. This applies also to armored personnel carriers with Tatra engines. However, the possibility of using military aircraft for civilian purposes is smaller, but there is still the possibility of using them for spare parts, mainly in the Army, for these are again various versions of contemporary MiG-21 aircraft.

[Knizat] Of equal importance is the question of what the 15-percent reduction in our defense budget in the next 2 years will amount to.

[Vacek] Naturally it will be the relevant bodies that will deal with the 15-percent issue; that is, it is above all the CSSR Government that will decide how to use these funds. We could make various comparisons. I think that I could give you an idea of this sum when I say that it is not a small one and that it is larger than the amount

allocated for work on ecological investment projects in the first 3 years of the Eighth 5-Year Plan. Those construction organizations that will be reinforced will help the construction industry in the national economy. They should make a contribution to all of society. This will amount, along with existing construction organizations such as military construction organizations, to several billion Kcs of gross production for the 5-year plan, with which we will help the national economy.

[Knizat] Our defensive military doctrine, which was formulated by the Berlin session of the Warsaw Pact Political Consultative Committee, has for the first time used the term sensible sufficiency. The latest steps by the Warsaw Pact are directed specifically toward its reliable implementation. This is important because talks are beginning on reducing armed forces and arms in Europe from the Atlantic to the Urals. At the same time, it is an appeal to the NATO member states to join our effort to remove asymmetry in military arms and to make a specific contribution to building greater trust and security in Europe.

Chief of Staff's Press Conference Details Planned Troop, Arms Cuts
AU0402180689

[Editorial Report] Prague RUDE PRAVO in Czech on 1 February on page 1 carries a 1,500-word report by its correspondents Vladimir Palan, Stanislav Stibor, and Josef Vlcek entitled "An Act of Goodwill for Disarmament." The report gives an account of the news conference given by Colonel General Miroslav Vacek, CSSR first deputy minister of national defense and chief of the General Staff of the Czechoslovak People's Army [CSLA], in Prague on 31 January, at which he discussed "two significant documents": the statement on troop and arms reductions and organizational changes in the CSLA (published on 28 January), and the Warsaw Pact study on the correlation of Warsaw Pact and NATO troops and arms in Europe (published on 30 January). Vacek's news conference is also the subject of a 1,200-word report by Vit Suchy, entitled "Equal Security for All," carried by Bratislava PRAVDA in Slovak on 1 February, on pages 1 and 2.

This RUDE PRAVO report contains additional information on planned changes in the CSLA. The first relevant passage reads: "Asked by RUDE PRAVO what measures the CSLA command intends to take in our Armed Forces so that their structure assumes an undisputed defensive nature, Miroslav Vacek replied that a whole package of measures is involved. They concern, above all, a marked reduction in the number of tanks in all-purpose Army organizational structures—that is, in motorized infantry and tank divisions, which form the backbone of the CSLA's combat strength. On the other hand, we want to reinforce our units by increasing the number of antitank weapons. Apart from this, it appears to be advantageous to reinforce the Army's engineering units. In other words, what is at issue are primarily

military operations whose aim is to reinforce the resistance potential of defense.' He went on to say that one could find many other steps that accentuate the defensive character of our troops."

The second relevant passage reads: "As for the issue of reducing the number of soldiers in combat units by 12,000 men, Miroslav Vacek said that, in our case, this involves transfers from combat units to Army construction organizations. In other words, it is not a reduction in the form of layoffs or nonconscription into military service. The reduction concerns both professional soldiers and conscripts, mostly collectives disengaged from the three all-purpose Army divisions cited [in the statement on CSSR arms reduction measures published on 28 January] whose equipment will be stored and mothballed in depots. Additional soldiers will be transferred to Army construction organizations from our Army's support units. The Army's own construction organizations will be used to assist the national economy. This assistance will be worth several billion korunas for a 5-year period.

"When he spoke about eliminating weapons (tanks, armored personnel carriers, and so forth), he said that the engines and other components of tanks can be used for spare parts. It needs to be said that this elimination will not concern outdated types, but rather tanks of the T-54 and T-55 series, which means that their components can be used as spare parts for those tanks of these series still remaining in service. It will also be possible, for instance, to equip some tanks with bulldozer attachments and use them in cleaning up industrial accidents. It is quite possible that organizations will come up with yet other ideas for their use. It is obvious, however, that these tanks cannot remain tanks, that their turrets, gun barrels, and other weapons systems must be scrapped.

"The same is true of armored personnel carriers. As for aircraft, there is a possibility of using aggregates [agregaty] and some other components for spare parts, because here, too, the reduction concerns types that remain in service—MiG 21's and Su-7B's."

The Bratislava PRAVDA report on the news conference includes passages in which Vacek comes out against a reduction of military service, and one promising the disclosure of details on Czechoslovakia's military budget.

The first passage reads: "Replying to journalists' questions, Col Gen Vacek said that, despite the existence of a more favorable political atmosphere in Europe, a real danger of war persists. Our Army, which stands on the Warsaw Pact's defensive front line, must respect this reality. This is also one of the reasons why, for the time being, we cannot reduce military service in our country. Raising the quality of the troops' training and strengthening cooperation with the other armed forces making up the socialist states' defensive alliance in Europe continue to rank among the CSLA's paramount tasks. Therein also lies the guarantee that the adoption of the new measures will not result in the CSLA being weakened."

The second passage reads: "In each country—and this applies to both socialist and capitalist countries—the resources appropriated for the defense budget are calculated in different ways. This is why everyone counts according to his own criteria. A mechanical comparison is impossible. He expressed the conviction, however, that, beginning next year, it will be possible to publish these expenditures in greater detail in our country, too."

Military Observers Invited to Austrian Maneuvers
AU0102153489 Prague RUDE PRAVO in Czech
31 Jan 89 p 2

[CTK report in the "International Relations" column]

[Text] General Othmar Tauschitz, general inspector of the Austrian Army, has invited two Czechoslovak officers to attend the exercises of the Austrian Army. These exercises begin in the Waldviertel area on 31 January. The invitation is to serve as another step toward developing Czechoslovak-Austrian relations and the strengthening of good-neighborly relations.

Chief of Staff Vacek Details Troop Cuts, Soviet Withdrawal

Press Conference 3 Feb
LD0302142389 Prague CTK in English
1342 GMT 3 Feb 89

[Text] Prague Feb 3 (CTK)—Czechoslovakia welcomed the successful conclusion of the Vienna follow-up meeting of the Conference on Security and Cooperation in Europe as a new milestone on the road towards a qualitatively new state of Europe, Colonel-General Miroslav Vacek told a news conference here today.

The chief of the General Staff of the Czechoslovak People's Army and first deputy defence minister stressed that Czechoslovakia considers disarmament in Europe one of the basic principles of its foreign policy. He said that in Europe there exists approximate military parity, and that reliable determination of the ratio of military forces on a global scale is a complex problem. In this connection he voiced regret that NATO has not accepted the Warsaw Treaty's proposal for joint work on this issue. If it had accepted it more could have been done, he said.

Speaking about the planned withdrawal of one Soviet division from Czechoslovak territory, Vacek said that four independent Soviet formations will be withdrawn this year including one shock parachute battalion, one engineers' battalion. Besides this, two divisions of the Central Group of Soviet Forces in Czechoslovakia will be reorganized so that they acquire a markedly defensive character. On the whole, 1,500 soldiers, 197 tanks and 20 combat aircraft of the Soviet Army will be withdrawn from Czechoslovakia in 1989.

In 1990, one Soviet tank division will be pulled out of Czechoslovak territory and other units will be reorganized with the aim to strengthen their defensive character. This will mean withdrawal of another 3,800 soldiers and 516 tanks. Thus, in the years 1989-1990, withdrawn from Czechoslovakia will be one Soviet tank division and four independent battalions totalling 5,300 men, 708 tanks and 20 combat aircraft.

Answering a question about military service in Czechoslovakia, Miroslav Vacek said that the basic service lasts 24 months but there exist exceptions in which the service is shortened to only five months on grounds of family and social reasons or if it is in the interest of national economy. On the possibility of the so-called alternative service demanded by believers he said that this is not motivated by political reasons. The command of the Czechoslovak People's Army does not consider this problem topical as it concerns only individuals. These cases are being sensitively solved and solutions satisfying both sides are being found.

On the possibility of shortened military service in connection with the Czechoslovak initiative to create a zone of confidence in central Europe, Vacek said that this would mean reduction of the absolute number of the Czechoslovak Armed Forces. "Czechoslovakia's historical experience confirms that as long as the present state in Europe concerning the number of armed forces and amount of weapons and equipment is preserved, the length of the basic military service (in Czechoslovakia) will remain the same as at present," Vacek said.

He underlined that Czechoslovakia lays great stress on success of the talks on conventional armed forces opening in Vienna March 6.

Further Details on Withdrawal

LD0302142389

[Editorial Report] Prague RUDE PRAVO in Czech on 4 February on page 1 carries a 700-word report by Josef Nyvit entitled "Initial Steps To Implement the Czechoslovak Initiative To Establish a Zone of Trust." The report gives an account of the news conference given by Colonel General Miroslav Vacek, chief of the General Staff of the Czechoslovak People's Army, in Prague on 3 February, concerning measures implemented in Czechoslovakia to "reduce the level of military confrontation along the line of contact between the Warsaw Pact and NATO member states."

The RUDE PRAVO passage on Vacek's remarks about the withdrawal of Soviet troops from Czechoslovakia reads: "Relying to journalists' questions, M. Vacek stated, inter alia, that four independent Soviet formations will be withdrawn from the CSSR in 1989: one airborne assault battalion [uderne vysadkovy prapor], one engineers battalion, one chemical-weapons protection battalion, and one motor transport battalion. Besides this, two divisions of

the Central Group of Soviet Forces [stationed in Czechoslovakia] will be reorganized so that they adopt a more pronouncedly defensive character. On the whole, 1,500 soldiers, 192 tanks, and 20 combat aircraft will be withdrawn from the CSSR this year.

"In 1990 one Soviet tank division will be withdrawn and other units will undergo organizational changes with the aim of reinforcing their defensive character. An additional 3,800 soldiers and 516 tanks will be withdrawn.

"In other words, one Soviet tank division and four independent battalions totaling 5,300 men, 708 tanks, and 20 combat aircraft will be withdrawn from the CSSR in the 1989-90 period."

GERMAN DEMOCRATIC REPUBLIC

FRG SDP's Lafontaine Cited Against Short-Range Missile Plan

AU1302111389 East Berlin NEUES DEUTSCHLAND in German 11-12 Feb p 1

[Text] Bonn (ADN)—Oskar Lafontaine, Saarland minister president and SPD deputy chairman, has criticized the FRG Government's plan to build a "short-range missile that can possibly also be equipped with nuclear warheads" as incredible. Lafontaine said that Bonn is now even trying to sell the suspension of the project as a contribution toward disarmament.

Walter Kolbow, deputy chairman of the Bundestag Defense Committee, said on the same subject that those who are serious about mutual security and the conversion of armaments into defensive structures do not need any offensive missiles. For temporarily freezing the KOLAS [Complementary Air Attack System] missile project must be assessed as an attempt to stop public discussion of plans to step up armament. However, the issue must remain on the agenda, he said. The objective must remain a third zero solution for Europe, he said. The disarmament process which has been initiated by the INF Treaty must be continued, and the threat posed by nuclear and conventional short-range missiles must be eliminated, he said.

NATO Response to Warsaw Pact 'Unilateral Disarmament' Criticized

Defense Minister Wants Reciprocal NATO Steps

LD1002151189 East Berlin ADN International Service in German 1332 GMT 10 Feb 89

[Text] Berlin (ADN)—GDR Defense Minister Army General Heinz Kessler has described the unilateral disarmament steps of the Warsaw Pact states and the comparison of forces set out by them as important contributions to peace and detente in Europe.

That also applies to the decision announced by Erich Honecker on reductions of the National People's Army [NVA] and GDR defense expenditure, he said on Friday in Berlin in a lecture to leading SED cadres from state and industry. True to the special responsibility concerning the sensitive border between imperialism and socialism, this unilateral step is proof of the integrity and predictability of socialist foreign, security, and military policies.

Army General Kessler stressed that the peoples rightly expect the NATO politicians and military personnel also to make substantial contributions to reducing their attack potential while respecting the real relationship of forces. The appeal to forego any attempts to get a round the intermediate-missile agreement and to act on similar disarmament measures for its armed forces was directed particularly at the FRG Government.

NATO 'Has Not Responded'
AU0902074989 East Berlin NEUES DEUTSCHLAND
in German 7 Feb 89 p 6

[Article by Lieutenant Colonel Dieter Daumann and Colonel Hans-Joachim Lauenstein: "NATO—Words and Deeds"]

[Text] At present, the general atmosphere in international relations is positive. Apparently a turn from confrontation to detente is taking place, as Erich Honecker stated at the Seventh SED Central Committee session.

In order to make this a permanent and irreversible development, the Warsaw Pact states, despite visible complications and massive resistance by forces hostile to detente, again submitted numerous proposals at the beginning of this year. The declaration by the Defense Ministers Committee on the numerical strength of the Warsaw Pact's and NATO's Armed Forces and armaments and the announced unilateral reductions show once again the socialist military coalition's staunch willingness to do everything in its power to speedily reduce mutual concerns, to end the arms race, to facilitate the start of conventional disarmament, and to make peace more secure for all peoples.

In an illustrative way that is apparent to everybody, the socialist European states are implementing step by step the principles of the Warsaw Pact's joint military doctrine which was adopted in Berlin in 1987. All this affects the nuclear and conventional disarmament process positively.

Proposals by the Warsaw Treaty Unanswered So Far

Undoubtedly, the definitions of the Stockholm document on confidence-building measures and security have contributed to improving the climate of predictability, confidence, and security in Europe. For example, last year 24 National People's Army officers observed

maneuvers, among them 20 NATO maneuvers. During the same period, 68 NATO officers took the same opportunity on GDR territory.

Although first steps in the right direction have been taken, one cannot fail to see that influential NATO circles stick to their course of confrontation. This is manifested by the fact that the North Atlantic Alliance still has not responded to the well thought out and comprehensive offers by the Warsaw Pact states, for which it has been severely criticized by some in its own camp.

This course of confrontation was also demonstrated by the NATO Autumn Maneuvers of 1988. As in the years before, staff officers and troops trained for the "West's strategy of deterrence" with modern nuclear and conventional weapons. At least half a million men participated—from the North Cape to Turkey, including the Atlantic, the North European waters, and the Mediterranean.

FRG Is the Largest 'Training Area' on the Continent

The FRG territory, which is the continent's largest and most intensively used "training area" with 580,000 departures of military planes and 85 large-scale and 5,000 smaller (less than 2,000 men) exercises per year, also remained the main area for maneuvers in 1988. In September alone, 125,000 soldiers were concentrated for "Certain Challenge" in the FRG's southeast, which according to information, put out by the United States was the most comprehensive U.S. Army maneuvers since World War II. A U.S. staff officer told the press: "We are out there with all we have." That is, only a few kilometers from the borders of the GDR and the CSSR, the sensitive dividing line between different social systems and military coalitions.

Thus, because of their structure, their size, and the direction of their thrust, the concept, and the concentration of forces and means, the NATO autumn maneuvers of 1988 were by no means a contribution to detente, disarmament, and further confidence-building. Even the upper middle-class paper DIE WELT was not able to refrain from stating that the 1988 maneuvers "were basically no different from previous ones."

Against this background, the FRG chancellor's assessment at the Bundeswehr commanders' conference on 13 December 1988 appears more than questionable as he claims: "Our security policy (that of the FRG—the authors) has never had anything to do with the saber rattling of the past. It has served peace from the very start."

Measures That Are Out of Place in Our Time

After "Autumn Forge-88," also Scholz, FRG defense minister, will have to answer questions on whether this "FRG security policy" is really "constructive peace

policy," as he asserted in his speech in Moscow on 25 October 1988. There is a flagrant contradiction between wanting to "establish a just and reliable state of peace," as he said, and reality.

One has to observe with growing concern how certain NATO circles persistently try to dodge the agreements of the INF Treaty with plans for modernization and compensation. This concerns, among other things, the development of a new generation of 155 mm- and 203.2 mm-caliber nuclear artillery ammunition which can be transformed into neutron warheads by the installation of appropriate auxiliary equipment. This also concerns the continuous development of combat planes which can be used in the conventional and nuclear sectors (for example, the F-111).

The measures adopted by the NATO Nuclear Planning Group are also completely out of place today.

Modern Weapons for Old Policy of Violence

The additional deployment of sea-based cruise missiles in European sea areas, the introduction of new air-based standoff-missiles for NATO fighter bomber units, and the development of a system to succeed the Lance missiles with a range of little less than 500 km—to mention only a few examples—are a step in the wrong direction and serve the classical concept of the imperialist policy of violence. There is not one single detail that represents an approach to concentrating structures and arms primarily on defense, to take up the ideas about an inability to attack or even envisage reduction.

Such facts prove that, on the one hand, leading politicians from NATO states advocate a world in which peace is secure. On the other hand, influential circles in the Atlantic alliance are doing everything to stop and reverse the turn from confrontation to detente.

The most aggressive NATO forces obviously intend to take social revenge after all and, according to NATO Secretary General Woerner, create a "new political order in Europe." They are striving for military superiority and still insist on NATO's outdated military doctrine. Recent statements by NATO leaders at the 26th International Defense Conference in Munich have confirmed this once more.

Accordingly, there will be no change as regards the doctrine of deterrence, the military strategy of "flexible response," the first use of nuclear weapons, and "forward defense." For this purpose, the nuclear triad, strong conventional armed forces and the undiminished presence of U.S. Armed Forces in Western Europe, with the West European share being increased at the same time, are considered to be indispensable.

Pressed by the disarmament initiatives of the Soviet Union and its allies and by public opinion in their own sphere of power, the leading NATO bodies have declared

their readiness for negotiations on arms control and disarmament—however, exclusively on the basis of their own military strength and to their own advantage.

The supreme NATO body 1 day after Mikhail Gorbachev's speech before the 43d session of the UN General Assembly showed that they do not want to negotiate on the basis of the principle of equality and equal security. In the NATO Council's statement "Conventional Arms Control—Two Ways Forward," important asymmetrical reductions to NATO's advantage are demanded. The document contains only upper limits for weapons systems that suit NATO, such as tanks and artillery, and for troop strength. However, negotiations on systems in which NATO has superiority, such as the air force, naval forces, and some components of the land forces, are not planned at all.

Some people are still obsessed with the absurd idea that one could exercise political blackmail or economic pressure by clinging to the escalation of armament and using an expected or hoped for unstable situation in one or the other socialist country. Thus, it is urgently necessary to consider the words and deeds of the NATO sphere with watchfulness and without illusions.

Military Protection of Socialism Continues To Be Guaranteed

In the light of the latest Warsaw Pact declarations, it would be time for the NATO leadership and especially for the FRG to finally show their readiness for active disarmament steps. The seventh session of the SED Central Committee confirmed that, despite disruptive actions by the most aggressive imperialist circles, we firmly stick to our policy which is aimed at securing peace. This includes the further development of the dialogue with all forces of reason and realism. It also implies ensuring our national defense in all fields, and, above all, in the GDR Armed Forces and border troops, so that adequate and secure military safeguarding of peace and socialism continues to be guaranteed at any time.

Honecker, Czechoslovak Official Discuss Warsaw Pact 'Peace Strategy'

LD0302141789 East Berlin ADN International Service in German 1310 GMT 3 Feb 89

[Excerpt] Berlin (ADN)—The GDR and the CSSR want to contribute to the implementation of the Warsaw Pact's peace strategy with a flexible policy of dialogue. This was stressed in Berlin on Friday by Erich Honecker, general secretary of the SED Central Committee and chairman of the GDR Council of State, and Jan Fojtik, member of the Presidium and secretary of the CPCZ Central Committee. The two sides want to jointly utilize every possibility for strengthening the positive changes in the international arena.

This intention is demonstrated by the two countries' latest measures for the unilateral reduction of the manpower and arms of their armies. There is agreement

between the two sides that respect for the territorial integrity and sovereignty of all states must be part of the architecture of the European home if firm trust and broad cooperation there is to endure. [passage omitted]

Defense Minister Kessler, USSR's Chervov on Conventional Arms Talks

*LD0102235589 Hamburg DPA in German
2239 GMT 1 Feb 89*

[Excerpt] Berlin (DPA)—The Warsaw Pact views the comparison it has set out of its own and NATO's Armed Forces as constituting no final negotiation figures for the disarmament negotiations beginning in Vienna in March. This was made clear by GDR Defense Minister Heinz Kessler and Gen Nikolay Chervov, head of a USSR Armed Forces administration on Wednesday evening in the first German Television program "Focus."

Kessler, who was taking part for the first time in a disarmament discussion on West German television, said that all combat tanks capable of intervening on the battlefield have been included. Referring to the Western criticism on the incorporation of naval armed forces in the comparison, Kessler said that these participate in combat just as much as air forces, and have a considerable effect on its outcome. The mandate of the Vienna negotiations must be viewed in its complete breadth. It also includes islands and "groupings which use them as a base". For this reason air and naval armed forces should be taken into account.

Chervov was also of the opinion that one must consider all components in the comparison of the armed forces. One wants to express the concern, which exists on all sides, over the disproportions. Tactical nuclear missiles should be dealt with in separate talks together.

Social Democratic disarmament expert Egon Bahr spoke of a realistic comparison. The figures are correct. No more time should be wasted in arguing about figures, but an understanding should be reached on the level at which one wants to disarm. It is also interesting that in the East's view the naval armed forces should not be dealt with in Vienna but nevertheless should be seen there. John Kornblum, deputy U.S. Ambassador to NATO, said that he finds it interesting how the East is attempting to manufacture a definition of a balance which is not in harmony with the Vienna mandate. [passage omitted]

HUNGARY

Timetable for Soviet Troop Withdrawal Drawn Up
*LD0802215589 Budapest MTI in English
1907 GMT 8 Feb 89*

[Text] Budapest, February 8 (MTI)—The timetable for withdrawing some of the units belonging to the Soviet

Southern Army Group, temporarily stationed in Hungary, has recently been drawn up, and talks on the future of the evacuated facilities, a number of which are definitely to be converted for civilian use, are already under way.

In Szombathely, about 6,000 flats are to be constructed on the area of a 25-hectare garrison.

In Györ-Sopron County, the population is involved in the decision-making. Proposals have been made for using the buildings as tourist accommodation and shopping centres.

An historic building complex in Esztergom, which has been a military hospital since 1945, is to be returned to the Roman Catholic Church, its original owner.

The Soviet troops are to evacuate Godollo's 200-year-old Grassalkovich Castle as well. The local council and AMB, a French construction company, are carrying out a feasibility study for the utilization of this unique Baroque chateau. Reconstruction would cost about 2,000 million forints. A joint venture between foreign and Hungarian firms is to be set up for the purpose.

At Tokol, the proposals of the locals are to be forwarded to the Soviet command for consideration. The military health establishment there is to be converted into an old people's home, and some flats handed over to young couples.

Defense Officials Questioned on Warsaw Pact Troop Strength Figures

Defense Minister Karpati
*LD0602000289 Budapest Television Service
in Hungarian 1800 GMT 5 Feb 89*

[From "The Week" program]

[Text] [Announcer] First of all, let us talk about the soldiers. Following the partial troop and arms cuts of Soviet troops stationed in Eastern Europe, similar steps were announced for the Hungarian People's Army as well. Our guest is Defense Minister Ferenc Karpati. Welcome.

There is a lot being said nowadays about numbers of personnel. Let us now take a look at a chart, one that was provided by your ministry, on which we can see, according to the Warsaw Pact, how many soldiers—in thousands of people—the Warsaw Pact and NATO have; and according to NATO, how many soldiers the Warsaw Pact and NATO—this is the second line—have. The difference is conspicuous, but there is another thing that is also conspicuous if we look closely: We confess to having about 500,000 troops, in fact more than 500,000 soldiers more than we are supposed to have. Why is that?

[Karpati] Yes. It was expected that when the data was published there would be such a great discrepancy between what NATO published in last November and what the Warsaw Pact member states published at the beginning of this week.

The method of approach has to be taken into consideration here. As is known, the talks on reducing conventional armed forces and arms in Europe will begin in Vienna in exactly 1 month. Its mandate was argued for 2 years in Vienna, and then it was adopted with compromises. Its mandate, as was earlier proposed by the Warsaw Treaty member states, will cover the land forces now stationed from the Atlantic to the Urals, although we earlier suggested that it should cover naval forces as well. Now these will not come under it. Therefore, NATO compiled its data in a way that does not at all include naval forces.

As for naval forces, in terms of personnel, NATO has 700,000 people in Europe on the Atlantic Ocean and the adjacent seas. This in itself very much approaches the numbers we provided. We are not only talking about numbers here, however.

[Announcer] If we take a look at the other chart, it will immediately come to light concerning the basic armaments that we again find a very similar phenomena—namely, according to our data, that we have about 8,000 more tanks than NATO says we have. Is that right? We state that we have 59,470, while NATO says 51,500. Are we so overly sincere?

[Karpati] We included all types of tanks, even the oldest ones. I cannot say exactly how and according to what they estimated our totals. The Warsaw Pact member states have tried from the beginning to make all published data realistic. Anyways, during the talks, specifying these data cannot be avoided. It is impossible to talk about reductions today without strict control. The same thing also happened in the case of the agreement on intermediate-range missiles. There would not have been an agreement if there had not been agreement on strict control. This will also be the same concerning conventional arms.

[Announcer] You just mentioned the Warsaw Pact data from the beginning. Very many people have the impression that the beginning has come a little late to our country, for various NATO data could be read for years and decades in Western newspapers, while ours were considered to be top secret. Why did we start talking about this openly now?

[Karpati] NATO did not publish official data, either. There is a strategic institute in London that deals with this, and it publishes these every year. Incidentally, there are very big differences between the data issued by the London strategic institute and data recently released by

NATO, if we look at it in its details: Turkey and Greece, 70,000-80,000, regarding personnel. [sentence as heard] Thus, there are even such differences.

[Announcer] Did not we fall behind NATO in publishing official data?

[Karpati] We initiated its publication years ago. We suggested to NATO: Let us coordinate, and if this is possible, at the same time and using the same concept. They did not respond to this; they published it in November. We then said that we would wait until the agreement took place under the mandates, but that we would also publish data before the start of the talks. We were ready to do this for a long time. Well, I would just remind you, for example, that last year when the Soviet and U.S. defense ministers met in Switzerland, that also was a significant event; and there Army General Yazov proposed that NATO and the Warsaw Pact put their data on the table, just like their military doctrines, and that they be compared in that way. But they did not do this. However, I would like to say once more that the emphasis is on the fact that this data has been published. This was a precondition, and a very important precondition to the fact that these expected talks in Vienna should become successful. The enormous secrecy that surrounded this will cease. Well, for example, in our country also, we gave code numbers such as (2BF) to corps. Everybody knows this; these will be unjustified in the future. We can name the corps.

[Announcer] Like we also announced that in the next 2 years the strength of the Hungarian People's Army will be reduced by about 9,300. Of these, if I have it correctly, about 2,100 are officers and noncommissioned officers, while the rest are conscripts. If you could outline this briefly, what economic effects could this have? I believe that the situation of the Hungarian work force is not exactly rosy at the moment.

[Karpati] Yes.

[Announcer] Well, 7,200 people are going to enter the work force. What is their fate going to be?

[Karpati] Well, as for this labor force situation, there is not a labor surplus everywhere. For example, I am a deputy in Cegléd, and I recently visited an engineering factory. I know that it would be good if there were more workers. It varies. It has to be surveyed precisely—for example, whether our soldiers now discharged in February can find jobs. There are regulations under which which they have to be given their jobs back. Furthermore, their wages cannot fall behind those of others because military service is considered to be employment. And this is also going to be the same in the future. Thus, people who complete military service should under no circumstances be at a disadvantage; on the contrary, they should enjoy a certain preference. But I say it openly: When we talk about reducing the Armed Forces, then, unfortunately, we cannot take the labor situation into

account. Then, this, for us, I think, is a question of very great significance; we can undertake this reduction, and when we can do it, then we have to do it.

[Announcer] Thank you for coming to the studio and for this interview.

Defense Official Press Chief
LD0302113889 Budapest Domestic Service
in Hungarian 0600 GMT 3 Feb 89

[Text] On Monday [30 January], as we know, Miklos Nemeth, head of government, announced that the numbers of the Hungarian People's Army are to be reduced by some 9 percent. Aniko Sandor questioned Colonel Gyorgy Keleti, head of the Ministry of Defense press office, about what will happen to those professional soldiers who are released.

[Sandor] Will they be given retraining assistance or will they receive unemployment benefits?

[Keleti] Neither one nor the other. It is common knowledge that in the Hungarian People's Army there is an extremely great shortage of both commissioned and noncommissioned officers. In other words, we will be

redirecting those of our colleagues whose posts are abolished to places where no one presently is assigned.

[Sandor] In other words, does this mean that there will be no concrete cuts at all?

[Keleti] It is a question of reducing the places, of a cutting down; there will be no reduction in the existing professional numbers because even up to this point the staff of officers has not been completely filled. The other possibility for these officers is that in the 2 years during which this reduction in force will take place, several of our colleagues will be reaching retirement age; what is more, a good number of those currently serving are above retirement age. We will respectfully say goodbye to these officers, so that they can enjoy their well-deserved rest. If we did not have a shortage of officers, then indeed we would have to discharge officers now, but the number of vacated places will cover the number of officers whose places will be abolished.

[Sandor] What will happen to the privates?

[Keleti] When this actually takes effect, when the time comes for that unit, in which we announced, *inter alia*, that we will be abolishing a tank brigade, then we will not be calling up conscripts to it any more.

INDIA

Delegation to Paris CW Conference Opposes 'Ad Hoc' Ban

5200470C Bombay *THE TIMES OF INDIA* in English
10 Jan 89 p 7

[Article by Vaiju Naravane]

[Text] Paris, January 9.—India's external affairs minister, Mr Natwar Singh, has made a strong appeal against the emergence of an ad hoc arrangement to prevent the spread of chemical weapons which would discriminate against developing nations.

He told the TOI, "We are worried that what will emerge, will be an ad hoc arrangement to stop the spread of these weapons, which will put into action another discriminatory regime. In fact, Australia and 16 other countries have already agreed to ban the export of certain technology equipment and chemical substances.

"We have never been in agreement with the U.S., which defined the goals of the Paris convention on chemical weapons and bacteriological arms as being the reiteration of commitment to the 1925 Geneva protocol and the non-proliferation of these weapons. The French, the convenors of the convention, were sensitive to our reservations. In the documents, they have replaced the word proliferation with spread", he added.

Mr Singh told the conference yesterday, "India is not in a position to accept any ad hoc regime for controlling or banning the export of dual purpose chemicals, equipment or technology outside the framework of a full-fledged comprehensive and universally applicable chemical weapons convention. We believe that the establishment of such a regime would be discriminatory and that once established it would tend to perpetuate itself and the very need for a chemical weapons convention would in all likelihood recede into the background."

Mr Singh said India did not believe that the world could be divided into groups of responsible and irresponsible states—the responsible ones consisting of those who had the right to possess chemical weapons and who could be trusted not to use them and the irresponsible ones, those whose possession of chemical weapons posed a threat to the world. He emphasized that such a regime would be discriminatory because it would not address itself to the vast stock of chemical weapons in the possession of some countries.

Mr Singh pointed to the dangers of the development of unnecessary controversies if proliferation was placed on the agenda. "My delegation would like to emphasize that the central issue for this conference is not non-proliferation of chemical weapons but their elimination. If this

conference launches into the discussion of non-proliferation, it will get bogged down in controversies which will frustrate the very purpose for which it has been convened", he added.

Mr Muchkund Dubey of the external affairs ministry, who with the foreign secretary, Mr K.P.S. Menon, makes up the core of the Indian delegation said, "The conference has given itself very modest aims. We would like to go much further and India is pressing for the identification of the major stumbling blocks at the Geneva negotiations so that the conference can direct negotiators in Geneva to tackle those issues".

Mr Dubey identified these issues as certain aspects of on-site inspection, verification of non-production and the setting up of an organizational framework to implement the convention. "All that the negotiators in Geneva have agreed upon until now is the inventory of the stockpiles and the various stages involved in their destruction.

"We feel the conference should set a deadline for the convention. The present term used simply says 'the conference will make decisive progress towards concluding a convention'. This is too vague. A decisive progress towards progress could mean anything. We are urging a time-frame going into mid-1990," Mr Dubey said.

France Offers Technology, Hardware To 'Bolster Missile Program'

BK1302163589 Hong Kong AFP in English
1409 GMT 13 Feb 89

[Text] New Delhi, Feb 13 (AFP)—France has offered India a package of advanced military hardware and technology to bolster New Delhi's ambitious missile programme and expanding Air Force, a French official said here Monday.

The French Government-backed Groupement des Industries Francais Aeronautiques et Spatiales (GIFAS) has offered New Delhi advanced technology for India's current light combat aircraft (LCA) project, GIFAS' local representative Patrick Guerin said. [passage omitted]

Speaking at a news conference here, Mr. Guerin said GIFAS had offered to sell India its latest air-to-air long-range interception missile (Super-530) and a short-range combat missile for the Indian Air Force.

The GIFAS representative here neither disclosed the range of the two missile systems nor New Delhi's response to the French offer.

India successfully tested a 250-kilometre (155-mile) range surface-to-surface (SS) missile called "Prithvi" (Earth) in March.

It plans to build a 2,500-kilometre (1,553-mile) range SS missile codenamed "Agni" (Fire) to cap a programme it launched in 1983 to produce its own combat missile systems and slash imports.

The Soviet Union is India's main arms supplier. [passage omitted]

Commentary on Pakistan's Claim of Successful Missile Tests

BK1202100089 Delhi THE HINDUSTAN TIMES in English 7 Feb 89 p 13

[Editorial: "Pakistan's Missiles"]

[Text] Pakistan's declaration with a flourish that it has test-fired rockets for what should eventually make it a missiles power seems more designed to divert the focus of India's concern from Islamabad's capacity to make a nuclear bomb to its imminent mastery of a lethal delivery system.

It is not without significance that the announcer was the Pakistan Army chief, Gen. Mirza Aslam Beg, and the occasion was his address to the National Defense College at Rawalpindi before a crowd of military students from Bangladesh, Malaysia, Indonesia, Jordan and Turkey doing a war course.

Since Pakistan claims that it is not pursuing a nuclear weapons programme, it should follow that its space research is geared to no military objectives.

The proud announcement of the test-firing of missiles should have ordinarily come from the Pakistan Prime Minister, or someone on the civilian side of Pakistan's political structure, as an instance of outstanding scientific achievement. But, then, the intended military significance and the message of the event would have been lost.

Why should one assume that the missile story was a calculated move made at a particular point of time? The answer should be available in the recent news reports virtually confirming Western acquiescence in Pakistan's endeavour in the nuclear and thermo-nuclear fields, and in the projected view that the U.S. Administration may no longer find it easy to certify Pakistan's non-weapons program for continued American economic and military aid.

The danger to uninterrupted U.S. support might also have partly arisen because of Senator Stephen Solarz's strong views about the nuclear pursuits in South Asia. Gen. Beg might have felt compelled to tell the Senator that the latter would not be allowed to jeopardise the benign and indulgent attitude the U.S. has traditionally adopted towards Pakistan.

The new emphasis on missiles might serve another purpose. Washington apparently is getting reconciled to its inability to prevent Pakistan from having nuclear bombs in the basement. Its attempt to thrust upon India and Pakistan the concept of mutual abstinence of nuclear weapons has proved futile. The objective to get New Delhi around to it might be a step closer were a missiles race between India and Pakistan to become a reality.

Pakistan's lack of depth in land mass makes a missiles parity with India of far greater significance than possessing just a nuclear arsenal. Given the West's dislike of the development of rocketry and space technology in South Asia, an Indo-Pak missiles parity might become a tempting aim to achieve for Washington.

Since the possession of a long-range missile in the hands of Islamabad poses far greater security risks for New Delhi than a bomb, India might find the concept of a missiles parity difficult to accept. Pakistan's launching its missiles has only one message for New Delhi: It should stop dilly-dallying on its own missiles program.

ISRAEL

'No Cause for Panic' Over Iraqi Biological Weapons Report

52004510 Jerusalem THE JERUSALEM POST 19 Jan 89 pp 1, 12

[Article by Kenneth Kaplan and Judy Siegel]

[Text] Biological weapons are weapons of last resort. They are more likely to be used against civilians than against troops at the front, and even then only under the most extreme conditions, according to military strategist Brig. Gen. (res.) Aharon Levran.

Israel must take precautions to defend itself against biological warfare, but reports from the U.S. that Iraq has acquired biological weapons and the means to deliver them are no cause for panic, says Levran, an expert on non-conventional warfare.

"If you ask me, I'm much more afraid of chemical weapons. The effect is much more immediate," he told THE JERUSALEM POST last night.

Military sources said yesterday that the IDF was prepared to deal with a biological attack, but refused to give details concerning vaccines that have been stockpiled.

Like chemical weapons, biological weapons can be delivered through surface-to-surface missiles or a bomb dropped from a plane. Both are used against, "area targets," as opposed to "point targets." Unlike chemical substances, however, biological agents take a long time to disable the target population, making their tactical use against an enemy force massed for an attack unlikely.

Given this time lag, and the fact that medications and vaccines exist for many of the viruses spread in biological warfare, the use of either missiles or bombs to deliver the viruses against a civilian target is unlikely because the population would be alerted to the danger.

The most logical use of biological agents would therefore be against deeper, more sensitive strategic targets.

Reacting to the report that Syria, took, had biological weapons but had yet to arm its surface-to-surface missiles (SSMs) with them, Levran pointed out that Syria had perfected chemical warheads for its missiles before Iraq had. It is therefore only a matter of time before Syria arms its SSMs with biological weapons, if it indeed has them.

According to Levran, the use of biological weapons is unlikely in most scenarios involving Iraq in a future Middle East war. If, for example, the Iraqis aimed to avenge a blow to their forces taking part in a united eastern front against Israel, they would be more likely to use chemical weapons.

However, he clearly "can't rule out the possibility that in the face of a military debacle they would use biological just as they would chemical weapons."

According to Prof. Yehiel Bejer, chairman of the department of molecular virology at the Hebrew University-Hadassah school of medicine in Jerusalem, scientists who turn bacteria and viruses into high dangerous mutants for use in biological warfare are "playing with fire" because these are still inadequately understood and difficult to control, and can undo the world's efforts to defeat the spread of disease.

Bejer urged that international organizations like the UN "stand-up and fight" against the threat of biological warfare. "The UN, for example, should expel any member nation that has signed an international agreement on chemical or biological warfare but has itself violated such an agreement."

Biological weapons, he explained, are not like gases or other chemicals that kill only those directly affected. They multiply rapidly and can kill whoever or whatever comes in contact with infected people or animals.

In a handful of laboratories around the world, there are supplies of dangerous organisms, which for many years caused deadly epidemics like smallpox. The World Health Organization supervises arrangements with the U.S., the USSR, China and South Africa, where these organisms are carefully stored in "safekeeping for posterity," for future study.

But even these frozen collections should be destroyed, as their genetic imprint can be inserted into DNA or RNA for further study without being able to "escape from the lab and infect people with the disease."

He noted that a decade ago, smallpox virus "escaped" from a laboratory in England, infecting people with the deadly disease, and the scientist who was negligent committed suicide.

Bacteria and viruses are naturally found in nature, he explains, and they can infect humans or animals in a random manner. African Swine Fever, which affects pigs, caused such an epidemic in Cuba that officials claimed it was spread by Cuba's enemies through biological warfare, when it in fact had arrived naturally.

But in genetic engineering—a process developed within the last two decades, cells can be turned into mini-factories to produce all kinds of substances, from beneficial drugs to "shifting mutants" that are very different from the original and more dangerous. "We still don't really know how viruses cause disease," says Bejer, "and these violent organisms could backfire on the very country that produces them."

Prof. Efrayim Qatzir, the former president of Israel who is a biochemist at the Weizmann Institute in Rehovot, yesterday issued an impassioned plea for world control of biological weapons and the destruction of dangerous materials. "It is a threat to all mankind," he said.

Chapayevsk Plant for CW Destruction Nears Completion
*LD1302135889 Moscow TASS in English
1331 GMT 13 Feb 89*

[Text] Chapayevsk, Kuybyshev region, February 13
TASS—By TASS political news analyst Sergey Kulik and
TASS military writer Vladimir Chernyshev:

It is the first time that journalists have got an opportunity to visit the shops and laboratories of a chemical weapons destruction facility located on the right bank of the Volga in Kuybyshev region.

The facility, near the town of Chapayevsk, was recently mentioned by Soviet Foreign Minister Eduard Shevardnadze in his speech at the recent conference in Paris. He said: "Very few steps and gestures separate us from the conclusion of a historic convention on a ban on and full elimination of chemical weapons".

Foreign representatives will be invited here as soon as the facility, the construction of which is now being finalised, comes into operation. Its technological lines have already been built. Equipment has been assembled and has undergone tests.

Preparation is now under way for a comprehensive testing of the entire system on neutral media, subsequently on imitators and later on real toxic agents, i.e. phosphoorganic toxic agents, specimens of which were shown to delegations from 45 countries at Shikhan in October 1987. At that time there was talk that the facility near Chapayevsk would come into operation in 1988. It is now 1989 already...

"We deliberately postponed the opening, aware of the responsibility which rests on our facility's personnel", said Colonel Vyacheslav Solovev, director of the facility.

"The building of such a facility can't be rushed. We do not intend to create labour heroes in the destruction of toxic agents in future either. We shall do our work without undue haste and will engage in the destruction of chemical weapons for approximately 100 days a year, and will do preventive maintenance work the rest of the time."

By no means all Chapayevsk residents were gratified by the news of the construction of a facility of this kind near their town. They began sending protest letters to Moscow, and the ecological movement mushroomed.

When a government commission arrived in Chapayevsk recently and met members of the general public, many townspeople demanded a relocation of the new facility as far away as possible. They saw too much of town authorities' negligence during the years of stagnation to believe in the promises of the directors of the existing local plants to do away with acid and chlorine emissions or to

believe that the new facility, the name of which contains the scaring term "chemical weapons", will be harmless either to them or the environment.

"We give special attention to safe technology for the destruction of toxic agents", Major General Stanislav Petrov, who was recently appointed the commander of the USSR Defense Ministry's chemical troops, told TASS.

This is what Major General Igor Yevstafiyev, dr. of science (technology), thinks on the subject: "A single-stage process is used both in the United States, Britain, and the Federal Republic of Germany. Toxic agents are destroyed directly. We have divided the process into two stages: 1. de-gas, neutralise, and in point of fact render inert; 2. the murderous contents of the munitions and weapons get rid of the resultant reaction mass which poses no direct danger. Of course such a process is both more complex and expensive but, on the other hand, it guarantees a solution to ecological problems".

A smart-looking engineering building faced with blue tiles is the nerve centre of the facility. It houses a control panel with electronic computers for highly qualified specialists to monitor and direct all technological processes day and night. Opposite it is a three-storey laboratory building where analysis of all income reagents for the destruction of toxic agents and reaction mass will be carried out.

An international control laboratory will be located nearby. The Soviet side will provide only life support and safety systems while foreign experts will bring instrument packages to enable them to estimate the situation both at the facility and around it objectively.

"By the way, does it not seem to you that the very fact that we invite foreign specialists not only to work but also to live near the facility illustrates our confidence in their complete safety?" Colonel Solovev remarked. "Of course, we take care of our own personnel as well".

Upon walking past storage facilities with decontaminants, we enter a preparatory department of the main technological building. It is here that munitions coming in from the depot will be stripped of factory packaging and sent to be destroyed.

Depending on the size of munition, it is sent on a conveyor corresponding to its parameters. The extreme left conveyor line will carry chemical components of tactical missiles primed with the viscose VX agent. The chemical munitions are almost twice as high as a man and their calibre is 844mm.

Another conveyor will carry chemical components of air bombs containing 49 kg of sarin, and yet another conveyor will carry artillery jet projectiles capable of carrying eight kilograms of the same toxic agent. Only one milligram of sarin is enough to kill a human being.

On their way to the main hall of the technological building toxic agents pass through an airlock at the end of the preparatory department conveyors.

At the centre of the main hall, there are airtight chambers where the metal cover of the munition is automatically drilled through, opened up, and the toxic agent is extracted from it in vacuum conditions.

From there, toxic agents travel, through pipelines, into neutralisation facilities to mix with neutralisers. Very high temperatures make it possible to do this quickly. Instead of formidable toxic agents, there emerges a non-toxic reaction mass.

Subsequently scientists will ponder on how to make fertilisers from the mass which is based on phosphorus containing organic substances and how to utilize costly esters and resins. Munition covers will also be utilised and turned into scrap metal—steel, copper or aluminium—after decontamination, calcination, and cutting.

Discussion of Reasonable Sufficiency, NATO-Warsaw Pact Balance

Warsaw Pact Numerical Superiority 52000009 Moscow MOSCOW NEWS in English No 1, 8-15 Jan 89 p 6

[Article by Josef Joffe, chief of the international news department, SUDDEUTSHE ZEITUNG, West Germany: "Reasonable Sufficiency in Defense: Waiting for the Next Step..."]

[Text] In his UN speech, Mr Gorbachev said: "We will maintain the defence capability of our country at a reasonable and sufficient level." What does this mean? What would make Western Europe feel more secure?

I would like to outline three different subjects for analysis: the number of forces, the structure of forces, and Soviet political behavior.

The number of forces. Western Europe's key problem is what we regard as the worrisome conventional superiority of the Warsaw Pact. In the Central Region, according to the International Institute for Strategic Studies (IISS), some 800,000 Western ground troops face 1.15 million Eastern troops, with a tank imbalance of 13,000 to 21,000 and an artillery gap of 4,700 to 14,600.

West Europeans have always worried more about troop reinforcements than about forces already in place. And here, the Warsaw Pact has a natural advantage which derives from the simple fact of geography: the Soviet Union is close by and can reinforce its forward troops by road and rail while the United States must do so by sea, across 4,000 kilometers of ocean.

And so the edge that the East has become quite dramatic 30 days after the start of the conflict. According to the West German defense ministry, the lineup would look like this: 2.8 million NATO troops against 6 million Warsaw Pact troops; 22,000 tanks against 54,000 tanks; 18,000 Western against 48,000 Eastern artillery pieces.

That does not look like "reasonable sufficiency"; indeed, it looks more like an impressive invasion capability. Yet, if "sufficiency" means anything, it would be the certainty that both sides would be capable of defending themselves, but unable to attack each other.

Mr Gorbachev's announcement in New York that he plans to remove 50,000 ground troops and 5,000 tanks from Central Europe is an important step forward. Yet this would merely reduce, but not eliminate Warsaw Pact superiority. "Sufficiency" would therefore be well-served by drastic reductions in tanks, infantry and artillery. A very good start would be equal numbers for both sides. "Sufficiency" also requires structural change.

The structure of forces. The Soviet doctrine since World War II has heavily favored the offensive; accordingly, the aggressor must be defeated on his own territory. Perhaps that doctrine is changing now; however, the existing deployment of Warsaw Pact forces leaves ample reason for concern.

According to NATO estimates, the Warsaw Pact has 2,500 assault bridges mounted on armored vehicles; the Western alliance has only 454. This vast gap in river-spanning equipment suggests an army that plans to move fast in search of conquered space. Hence drastic cuts in the number of such bridging devices would be very reassuring. The same would hold true for other fast-attack forces. Any removal of offensive forces from a forward position would mute the threat of an unreinforced attack.

Western Europe would, therefore, feel most assured about constraints of both mobility and reinforcement capabilities. In practice, this would mean a different force structure: fewer tanks and more antitank weapons, fewer mechanized forces and more infantry, fewer long-range aircraft and more air defense fighters, fewer Category One and more Category Three divisions.

The Soviet Union could take a number of reassuring steps elsewhere. According to NATO, the Soviet output of main battle tanks in 1987 rose to 3,400—up from 3,000 in 1985. This is 2-1/2 times more than the total tank force of France. Perestroika must extend to the Soviet arms sector: the pace of Soviet arms procurement must be slowed down.

All these changes, especially if they continue, will have a far greater impact on Western threat perceptions than a ten per cent reduction in Soviet forces. The Soviet Union will always be a great power—and always stronger than any West European nation, and that will always be a

problem. But a steady, predictable and responsible foreign policy will make a real difference. Mr Gorbachev has made a great start, but is the change irreversible? As a good Socialist would say, this is a "historical process", and, unfortunately, we do know about the unpleasant dialectics of history.

A new global order means the steady building of trust above all, and once trust is firm, the importance of arms will pale.

The basic point is this: once we have learned that we can trust each other—which depends on continued deeds rather than on inspiring words—then we can afford to pay a lower premium for military insurance. As a result, we will buy fewer bombs and bullets—which is the nicest way to move toward "reasonable sufficiency".

Soviet Troop Cuts
52000009 Moscow MOSCOW NEWS in English
No 1, 8-15 Jan 89 p 6

[Article by Lev Semeyko, doctor of historical sciences: "This Time from NATO"]

[Text] Western analysts are fond of comparing NATO and Warsaw Treaty Organization armaments numerically. Well, numbers do look convincing, especially to those seeing them for the first time. The question is—how accurate are they?

General John R. Galvin, Supreme Allied Commander in Europe, once mentioned this curious fact: the 160 research papers on the military balance in Europe written in the West all came up with different results, due to large discrepancies in the input data and calculation techniques.

Some of the Soviet data is puzzling, too. Only last year it was stated that WTO had over 30,000 tanks in Europe. Earlier this year it was 50,000. Could WTO have almost doubled its tank reserves in just one year?

It is absolutely clear that calculations ought to be based on objective scientific techniques rather than on administrative, bureaucratic or propaganda assignments.

I believe it is pointless to rack your brains for a balance of dozens of numbers before the two sides sit down at the negotiating table and before teams of inspectors go out to military bases to check for themselves. Only then shall we know who has military superiority in which field.

The number of forces. Say what you may, the reduction of half a million troops and 10,000 tanks is a considerable contribution to lessening military tensions in Europe. Of course, it does not eliminate all asymmetries and disproportions in the NATO-WTO military balance. This is not what the Soviet step is aimed at, though.

The aim of the forthcoming talks on reducing conventional arms and armed forces in Europe is to ensure a mutually acceptable balance. The other side could, of course, reciprocate by taking similar steps. After all, NATO is no "poor old man" as far as armaments are concerned!

Let me quote the latest Pentagon estimates for reference. The Pentagon admits NATO superiority over WTO in tactical strike aviation (by 400 combat aircraft according to NATO or 1,400 aircraft according to Soviet estimates). This is a dangerous kind of superiority, because a really sudden strike can be dealt at a minutes' notice by bombers and attack aircraft, not tanks. Considering the quality of armaments, NATO's strike capability is by no means inferior to WTO's. Typically, NATO does not publish any estimates of its aircraft strike capability. NATO leaders are obviously reluctant to cause any doubts among the broad public as to the alliance's defensive nature...

The structure of forces. The decision announced by Mikhail Gorbachev to the United Nations is the beginning of a radical turn from an offensive to a defensive structure of Soviet armed forces. Yes, the Soviet union has a great strike capability in Europe. It would be hypocritical to deny that. But the important thing is the Moscow has set itself the task of reducing this capability to a minimum sufficient for solely defensive operations, and is acting accordingly.

The forces and armaments now causing special disquiet in the West will be radically reduced over two years. Six tank divisions from East Germany, Czechoslovakia and Hungary are to be withdrawn and disbanded. At the same time, it was announced that the remaining divisions would be reorganized. After the removal of tanks, their structure will become strictly defensive. The Soviet armed forces deployed in the above countries will be stripped of assault landing and other units and formations, including assault crossing troops and equipment. Without these forces and means, any offensive operation is inconceivable, since Western Europe as many obstacles for use in water.

Yet another NATO concern taken into account is that the danger comes, allegedly, not just from the first, but also from the second echelon of armed forces deployed in the European part of the Soviet Union. Allegedly, these can quickly advance to the frontline and exploit the strategic success of the attacking troops.

The unilateral Soviet initiative involves this second echelon, too. The number of troops in the entire European part of the USSR will be reduced by 450,000, with appropriate cuts in equipment. In the coming two years, forces deployed in the Asian part of the country will also be drastically reduced.

The political side. The USSR's large-scale reduction of forces is indisputable a major contribution to strengthening general security and trust. The world's politicians

of widely diverse persuasions have recognized and approved this step as an important impetus to the forthcoming European talks.

Nor does this step infringe on our own or our allies' national security interests. After due consideration, this

country's political and military leadership has arrived at the unanimous conclusion that reliable defence of the USSR and its allied states can be secured despite the intended reductions of the armed forces. Another manifestation of perestroika, this time in the most sensitive and vital sphere—national security.

FEDERAL REPUBLIC OF GERMANY

Officials at Munich Defense Conference Oppose SNF Modernization

Reduction or Elimination Urged
LD2801114289 Hamburg DPA in German
1105 GMT 28 Jan 89

[Excerpts] Munich (DPA)—Federal Defense Minister Rupert Scholz argued Saturday in Munich before leading Western politicians and military personnel for the modernization of short-range nuclear systems in Europe while simultaneously reducing battlefield nuclear weapons. At the 26th international defense studies meeting, Scholz rejected unilateral disarmament steps by NATO. Alfred Dregger, chairman of the CDU/CSU Bundestag parliamentary group, warned, however, against converting from medium to shorter-range arms. [passage omitted]

Scholz spoke in support of drastic reductions in nuclear artillery. The remaining nuclear potential should, however, be maintained "effective and modern" in the future as well, as is also being done by the Warsaw Pact.

Dregger, however, demanded the complete elimination of nuclear artillery. Short-range systems can only hit the territory of the potential victim, that means above all "us Germans, both sides of the border dividing us. Converting from medium to shorter-range arms is, therefore, a mistake from the strategic point of view and unreasonable for us as the ones who would be affected the most," said Dregger.

Correction on Defense Minister Scholz's Position
LD2801193689 Hamburg DPA in German
1738 GMT 28 Jan 89

[DPA headline: "Corrected New Version—Summary"]

[Excerpt] Munich (DPA)—Federal Defense Minister Rupert Scholz spoke out in Munich today at the 26th International Defense Studies meeting in favor of a "drastic reduction" in nuclear battlefield weapons in Europe, and so mentioned nuclear artillery in particular in this context. The remaining nuclear potential must, however, after a restructuring, be kept "effective and modern" in the future, as does the Warsaw Pact, Scholz said at the meeting of leading Western politicians and military.

Alfred Dregger, chairman of the CDU/CSU Bundestag parliamentary group, warned, however, against converting from medium to shorter range arms.

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mistake from the strategic point of view and unreasonable for us as the ones who would be affected the most," said Dregger. [passage omitted]

ATTENTION: The corrected new version makes it clear that Federal Defense Minister Scholz did not appeal in Munich for a "modernization of short-range nuclear systems."

Press Coverage of Issue
AU3001154789 Cologne Deutschlandfunk Network
in German 0605 GMT 30 Jan 89

[From the press review]

[Text] The RHEINISCHE POST from Dusseldorf points out: It is certainly no accident that on German soil U.S. Defense Minister-designate Tower has called for a modernization of the nuclear weapons still deployed here, as early as 1 week after President Bush's assumption of office. This aims at German domestic policy and cuts it to the quick. Foreign Minister Genscher has a key role here. He prefers to negotiate on reducing weapons, and not update existing ones, although precisely this could be a political ploy, of efficient arms reduction in Europe. The chancellor should no longer avoid the topic by pointing out that modernization is not a topical question. The allies' view is completely different, the RHEINISCHE POST stresses.

The WIESBADENER TAGBLATT states: The Munich defense conference shows once again how hard it is for NATO to counter the East bloc's disarmament initiatives with a consistent concept. And yet the Bonn politicians held good trumps in their hands. With the convincing argument that the population of the two German states is endangered, Dregger, chairman of the CDU/CSU Bundestag Group, called for the complete abolition of nuclear artillery. Even Defense Minister Scholz followed Dregger to a certain extent by advocating at least the drastic reduction of nuclear artillery. Is Bonn developing a proposal in the disarmament discussion that at last could lead NATO out of merely reacting, the WIESBADENER TAGBLATT asks?

Finally, the NEUE OSNABRUECKER ZEITUNG: Defense Minister Scholz certainly was not to be envied his role at the defense conference. While his future American colleague Tower decisively pleaded for the modernization of the short-range nuclear weapons in Europe, Scholz was not even permitted to use the word modernization after the latest events in the Bonn coalition. It may be absolutely understandable that the last thing the Federal Government wants at present is a public discussion on this topic. However, in the meantime, Bonn's obscuring the concept of modernization has become rather embarrassing, at least on the international stage, and has exactly the contrary effect to what the

Federal Government wants to achieve. Instead of pouring oil on troubled waters, the twisting of words continuously revives the discussion, the NEUE OSNA-
BRUECKER ZEITUNG points out.

Defense Minister Scholz: NATO To 'Clarify' Short-Range Missile Question
LD0502104189 Hamburg DPA in German
0914 GMT 5 Feb 89

[Text] Stuttgart (DPA)—Federal Defense Minister Rupert Scholz, CDU, believes that NATO will adopt in early summer the planned overall concept on security and disarmament and thereby clarify the question of nuclear short-range weapons and their future.

In an interview with South German Radio, Scholz affirmed today the Federal Government's view that a third zero solution for short-range weapons and thereby a so-called denuclearization is out of the question.

The minister stressed that the fact that Europe has had the longest period of peace in recent history is quite decisively due to the fact that the West has relied—in the preservation of its defense capability—not only on conventional weaponry but also on a minimum of nuclear weapons. It followed from this that after the elimination of the medium-range systems in the course of the INF agreement, it is not only a matter of determining the extent of short-range weapons, but also of keeping that which is indispensable.

Defense Ministry Denies Development of New Air Attack Missile
AU0702104889 Cologne Deutschlandfunk Network
in German 1000 GMT 7 Feb 89

[Text] The Defense Ministry has denied reports that the Bundeswehr is developing an air attack missile with a range of less than 500 km that is also able to carry nuclear warheads. Franz Alt, the chief of the ARD report program, said in Baden-Baden this morning that his department has obtained documents from the ministry, which according to FRG and U.S. arms experts show that this is the case. The order to develop this arms system, which is called (COLAT), is based on a directive given by the chancellor in 1983, to develop a successor system for the Pershing-1A.

The spokesman for the Defense Ministry, Dunkel, merely confirmed that there is a technology and experimental program by which Hardthoeh [FRG Defense Ministry] has tried to discover whether conventional missiles with a range of less than 500 km are technically possible. In doing so, the basic idea is to test conventional weapons which would render enemy airports inoperative during the initial phase of a conflict. Dunkel expressly ruled out the nuclear use of such missiles. He stressed that for this purpose, special technical prerequisites, which the Germans do not yet know, have to be

met. Such developments are being carried out by the governments of those countries which have nuclear weapons, as their responsibility.

Bonn Reportedly Considers Development of New Short-Range Missiles
AU0702124489 Hamburg DIE WELT in German
7 Feb 89 p 4

[Report by "RMC": "Bonn Considers New Air Defense Concept"]

[Text] Bonn—The development of missiles to attack enemy airports in central Europe is possible in a technically and financially acceptable scope. This is the result of studies prepared by various German and U.S. companies. Deputies of the Bundestag Defense and Budget Committees have been informed about these studies. At the focus of considerations is the question of how to improve NATO's air defense against the Warsaw Pact's strong Air Forces.

At the beginning of a conflict, missiles equipped with conventional and chemical weapons, as well as aircraft of the East would destroy NATO bases where air attack forces are deployed, as well as Western air defense missile bases within a few hours; as a result, the Warsaw Pact would achieve superiority in the air, which would give its attacking ground forces a major advantage.

By order of the Bonn Defense Ministry, the Munich-based MBB [Messerschmitt-Boelkow-Blohm] company in cooperation with U.S. firms has developed a concept that is intended to take the edge off the East's superiority. What they have in mind is the development of missiles that are supposed to carry a number of smaller conventionally equipped warheads over several hundred kilometers to their target in a ballistic trajectory.

At the beginning of a conflict, these missiles would "paralyze" the home bases of Warsaw Pact aircraft by destroying the runways and other facilities; the returning aircraft would have to go to alternative bases that are less well protected by their air defense.

NATO's counterattack forces could reach and attack these bases more easily.

The concept envisages the construction of cross-country vehicles for transporting two such missiles. Because of their mobility, they would be difficult to track by the enemy. They could be launched from hidden positions, and owing to their quick reaction capability, they could attack the Warsaw Pact's bases in the initial phase of an attack by the East.

Experts told DIE WELT that the new air defense concept is exclusively confined to the use of conventional arms. It has nothing to do with nuclear warheads. The missile is supposed to launch a "dispenser" that carries submunition [submunition] over the target—in most cases

an air base—and, guided by a radar image of the target, releases several dozen mini-missiles at a rate of 1 and ½ times the speed of sound. They penetrate concrete surfaces, and by the explosion of their warheads create relatively large craters.

The study concept, called "Techne," can enter the phase of exact performance definition this year, if the Federal Government and Parliament allocate the required sum of DM250 million.

Press Views Plans for New FRG Missile
*AU0802135609 Cologne Deutschlandfunk Network
in German 0605 GMT 8 Feb 89*

[From the press review]

[Text] One of the topics discussed by the press today are the Bonn Defense Ministry's considerations to introduce a conventional air attack system; these considerations became known yesterday [7 February].

Under the headline "Bonn as Troublemaker," we read in WESTDEUTSCHE ZEITUNG, published in Dusseldorf: "It is really strange. Whereas all the world is talking about disarmament, the FRG Defense Ministry makes the headlines only with reports on intensified armament—keeping to the extension of military service, continuing low-altitude flights, and modernizing weapons. Now Bonn apparently even plans to develop a new missile. Granted, Hardthoche [FRG Defense Ministry] immediately denied reports that the new weapons system would be equipped with nuclear weapons, but an uneasy feeling remains. It almost seems that Bonn intends to interfere deliberately with the conventional disarmament talks beginning in Vienna by the middle of February."

NUERNBERGER NACHRICHTEN writes: "No matter how hard the Hardthoche people are trying, their denials are unable to hush up the facts. By order of the Defense Ministry, German arms experts are developing a Bundeswehr missile which, having a range of less than 500 kilometers, just respects the limit set by the INF Treaty. Can it be true that in this Republic such a far-reaching system could be developed just now—a system about which we must say that despite all assertions to the contrary, it of course will leave those who are threatened by it in the dark about whether it will have a nuclear or a conventional warhead, once it is built?"

The Hannover publication NEUE PRESSE says: "Even though the ultimate proof has not been furnished, much indicates that by its secret research order, Hardthoche, with the Chancellor's approval, reserves for itself the option of a German nuclear missile. This probably is an independent German contribution to considerations of NATO to compensate for the elimination of intermediate-range weapons by other systems. If public protest were to foil the German counterproduct, it would not

matter. Sooner or later, the blueprints will certainly turn up again in South Africa, Libya, Israel, or wherever German technology is being paid for."

Defense Ministry Spokesman on MLRS Missile Link to Lance

*LD1302155489 Hamburg DPA in German
1444 GMT 13 Feb 89*

[Text] Bonn (DPA)—Conventional American MLRS (Multiple Launch Rocket Systems) are already at the Artillery College of the Bundeswehr in Idar-Oberstein; these were selected by the United States as the basic model for a modernized nuclear short-range missile. The Federal Government had been informed of this as early as 1983, Winfried Dunkel, Defense Ministry spokesman, told the press on Monday. [13 February]

Thus the spokesman partly confirmed British press reports on Sunday about the MLRS missile system which at the time was said to be only a "purely conventional artillery system". Dunkel described the MLRS carrier as a multipurpose missile launcher. Some 200 are to be deployed in the FRG.

The spokesman denied any connection with a decision made about the modernization of Lance short-range missiles, linked to the overall NATO disarmament concept. The fact that the MLRS carrier was "selected as the base model for the launch apparatus of the subsequent Lance 'system'" was a purely national decision by the United States. Based on the MLRS, a model is now to be developed which could go into production if the alliance partners make their modernization decision. This purely American decision was approved in 1983 by the NATO Nuclear Planning Group (NPG). At that time, as Dunkel explained, the approval was tied to an expectation that after a decision was made, guidelines would be available to which, however, no one would have to feel themselves bound.

On Monday, a few hours before the concluding talks between U.S. Secretary of State James Baker and Federal Chancellor Helmut Kohl, Government spokesman Friedhelm Ost explained remarks about the Federal Government's attitude. The Federal chancellor in each case meant "the real decision" when he spoke about there being time until 1991-92 for a decision on the production of the successor system, Ost said.

Officials View East Bloc Disarmament Proposals
*AU2701120089 Hamburg DIE WELT in German
27 Jan 89 p 8*

[Report by "CO": "Eastern Disarmament Proposals Must be Translated into Agreements"]

[Text] Bonn—Leading Bonn politicians yesterday [26 January] welcomed the unilateral disarmament measures announced by Moscow and East Berlin, but made clear at the same time that these steps must be translated

into disarmament agreements. "Only agreed disarmament will ensure verifiability and make a reduction in weapons and forces irreversible," said Foreign Minister Hans-Dietrich Genscher. CDU/CSU deputy floor leader Volker Ruehe, General Wolfgang Altenburg, chairman of the NATO Military Committee, and Horst Teitschik, the chancellor's advisor, made similar statements.

The line that has been expressed here is obviously aimed at counteracting tendencies toward unilateral disarmament measures of the West in response to the steps announced by the East. Genscher said in this respect: "I believe that our public accepts the simple principle according to which those who have more must reduce more. The Warsaw Pact still is quantitatively superior in many areas." He added that it is really important now to begin the Vienna negotiations on conventional stability on 6 March, "because we must convert unilaterally announced steps into agreed disarmament."

Ruehe said that the announcement made by the East could help make the Vienna negotiations easier. However, it would be wrong for NATO to react by unilateral disarmament measures, because this would complicate the Vienna negotiations, since the reduction of asymmetries would thereby be undone," Ruehe said.

Ruehe believes that the Europeans should show understanding if the United States were to consider that troop reductions should be focused on U.S. and Soviet units during the initial phase of the negotiations. Regarding the "GDR," he said that a marked withdrawal of Soviet troops is even more important than reductions in the National People's Army. Such a withdrawal will also have an influence in the sense of more freedom of movement in the central and East European countries, Ruehe said. He added that he could imagine that in return for a reduction by six divisions on the Eastern side, one or two divisions will be withdrawn on the Western side.

The chancellor's advisor Teitschik said: "Even if Gorbachev implements the steps announced, he will retain a certain superiority. The response simply is this: Let us negotiate now between East and West. We all want the weapons to be reduced; however, they must be reduced on both sides, and the result must be a balance. The Federal Government will emphatically work toward this end."

General Altenburg said that the present Soviet Government has clearly admitted to the excessive arms buildup during the Brezhnev era. He said that if the Soviet Union's superiority, which was expanded during that time, is now reduced, this must be welcomed. However, it must be negotiated, so that it can be checked and verified, Altenburg said.

NATO Secretary General Assesses Soviet, Western Initiatives
AU310111389 Hamburg WELT AM SONNTAG
in German 29 Jan 89 p 26

[Interview with NATO Secretary General Manfred Woerner by Siegmar Schelling in Brussels: "Facing the Ramstein Committee During the Second Half of February," date not given]

[Excerpt] [passage omitted] [Schelling] Is it not a success on Gorbachev's part when, in an opinion poll, German citizens place the importance of protection against an outside threat in the 17th and last place?

[Woerner] One could say so. I see this a bit differently. I think that, first of all, this is a success of NATO. NATO and the Bundeswehr have safeguarded peace in freedom so well for 4 decades that many people have forgotten on what security is based. This is, above all, a process of growing accustomed to what—thank god—seems to be more or less a matter of course because of our efforts. Our problems are the problems of success. Gorbachev's problems are the problems of failure, of the failure of his system.

[Schelling] Still, the demand that NATO has to respond with unilateral signals to Gorbachev's announcement of laying off 500,000 soldiers is becoming increasingly louder....

[Woerner] I can explain such a demand only out of a very superficial view of things that orients itself at daily politics. Here the proposal of the week is confused with what is really called initiative—intellectual leadership. This is on our side. The East is turning toward the West, not the other way around. Communism has failed, not the system of free market economy. Gorbachev's attempt to reduce his military burdens, which we support and understand, also is an expression of his economic problems. He is not trying to carry out reforms because he wants to turn the Soviet Union into a democracy. He is carrying out reforms because communism is not doing what it has to do in a modern world.

[Schelling] And the NATO initiatives?

[Woerner] There is not a single field of arms control and disarmament in which the West does not have the conceptual initiative. The zero option as well as the start negotiations were Western proposals. This continues with the proposal of a total ban on chemical weapons.

[Schelling] A proposal by then Vice President and now President Bush of 1984....

[Woerner] Yes. For 18 years the Americans unilaterally renounced the production of chemical weapons. This has been forgotten, too. Then the CSE process, the process of confidence-building—initiated by the West, the idea of conventional arms control—initiated by the West.

There are heaps of unilateral advance moves by the West: 2,400 nuclear arms have been unilaterally eliminated by us over the past 5 years. No one has talked about this. Now Shevardnadze announces the elimination of a handful of short-range missiles and everyone is rejoicing.

[Schelling] Is this not depressing?

[Woerner] If we, like the Warsaw Pact, had five to seven times more weapons in some areas, it would be easy for us, too, to eliminate a few of them unilaterally. We have already made the decisive advance move: The West has always maintained only a minimum of what it needed to defend itself. The East, on the other hand, has built up potentials for decades, has accumulated too many arms so as to be able to attack. There is a simple principle: The one who has more has to give away more. It is not the weaker but the stronger one who has to make advance moves.

[Schelling] What will be NATO's proposals?

[Woerner] The NATO proposals will go considerably farther than what Gorbachev is doing unilaterally. Then this has to be done on both sides. We will also go down much further. In the field of tanks, for instance, our proposal is: only 20,000 tanks on each side.

[Schelling] Was NATO surprised by Honecker's most recent proposal to reduce the People's Army by 10,000 men?

[Woerner] I personally was not surprised at all. After all, he was the last one of a number of Warsaw Pact leaders who followed this path, obviously in a coordinated action. This also serves the psychological preparation of the forthcoming negotiations on conventional disarmament control. Of course, we welcome this, but it is not enough. I can also imagine that Honecker needs proof that he is not just against Gorbachev but that he also follows him for once.

[Schelling] In particular because he wants to keep the Berlin Wall for another 100 years...

[Woerner] This again shows that we should not forget one thing: The main problems in our world are not the military problems. The source of tensions lies in the political area, and one has to start opening borders, gradually overcoming the division of Europe and making sure that the peoples get their right to self-determination and human rights.

[Schelling] When is the decision about a modernization of the West's short-range nuclear weapons to be made?

[Woerner] We are currently discussing this. I cannot give you a binding date. One thing is clear: We are interested only in a minimum amount of such weapons. However, this minimum must be maintained at the latest standard, as the heads of state and government said in March 1988.

[Schelling] Does Moscow not modernize its weapons?

[Woerner] I am always surprised that in our country the modernization of the "Lance" missile, which will take place in 1995, is discussed so heatedly. No one is excited about the fact that Gorbachev has recently modernized his short-range nuclear weapons in the GDR and has replaced obsolete "Frogs" with "SS 21." I would have only wished that the people had discussed more vividly something that has just happened than something that will perhaps happen in 1995.

[Schelling] But Shevardnadze recently assured Genscher "with great sincerity" that Moscow does not engage in modernization...

[Woerner] It is easy to talk when the process has been concluded. The Soviets definitely did this over the past few months and years—apart from the fact that they have introduced two totally new mobile intercontinental weapons, the "SS 24" and the "SS 25."

[Schelling] Does Gorbachev also continue conventional armament?

[Woerner] In Moscow the modernization of conventional and nuclear weapons is continuing unabated and as a matter of course—and Gorbachev does not ask our opinion on this. So as not to give a wrong impression: I think that Gorbachev has realized that he cannot spend more than 15 percent of his gross national product on armament. On average, NATO does not spend much more than about 3 percent, the United States spends about 6 percent. I hope that Gorbachev will reduce his armament burden to a sensible scope. However, at the moment reality opposes intention.

[Schelling] At the Senate hearing, Tower, the new U.S. secretary of defense, also broached the topic of the continued stationing of U.S. troops in Europe. Is this a sign of alarm?

[Woerner] I do not yet see it as such. I think that the mutual interest in safe overall conditions for a peaceful development in the world and the interest in the success of armament control will make sure that the presence of the Americans in Europe will remain unchanged in its substance.

Defense Minister Scholz Interviewed on Prospects for CFE Talks

AU 1102160689 Hamburg DIE WELT in German
11 Feb 89 p 4

[Interview with Defense Minister Rupert Scholz by Manfred Schell: "Scholz: Figures Must Be Put on the Table in Vienna"; date and place not given]

[Text]

[Schell] In March the conference on conventional arms control will start in Vienna. The Warsaw Pact's comparison

of armed forces has provided new material for discussion. Does it result in a new view of things?

[Scholz] Conventional arms control is the most important concern we have in Europe. Therefore, I welcome the conference, and I am also facing it with optimism. This conference will certainly need time and patience. The goal of conventional stability is the most ambitious goal one can have in disarmament and arms control policy. Even given the best intentions of both sides, the criteria according to which the armed forces are compared are complicated. Armed forces must be compared if one wants to reach the goal of equal upper limits at a low level.

It is a positive fact that the Warsaw Pact has now also presented a comparison of armed forces. We had urged it to do so for a long time. At our Moscow meeting I asked Soviet Defense Minister Yazov to have the Soviet Union quickly present its figures because the NATO figures have always been on the table. First of all, one has to know where views differ. This is all the more important since Gorbachev has finally agreed to Western calls for asymmetric disarmament as a first stage, then symmetrical disarmament after the disparities have been eliminated in the second stage.

[Schell] The Soviet Union says that there is a balance in overall forces. What is your answer to this?

[Scholz] This does not correspond to our findings, and therefore one has to clear up this issue. We still see a massive superiority, which maintains the Warsaw Pact's capability of invasion without any changes. The unilateral measures that have been announced, in particular the reductions involving 500,000 Soviet soldiers, do not change this, either.

[Schell] Has Moscow presented honest figures?

[Scholz] These figures have to be taken seriously and have to be critically checked by us.

[Schell] The Soviet side has stated that figures cannot be a topic in Vienna because naval forces would not be included there.

[Scholz] This is important because the Soviets included naval forces in their comparison, but these naval forces are expressly excluded in the mandate for the Vienna negotiations. This has to be the case because we in Europe still have the decisive geostrategic disadvantage that in the transatlantic alliance we depend on reinforcement from the United States. The other side does not have to cross the Atlantic. Therefore, NATO considers a sufficient amount of naval forces indispensable to a balance of forces.

[Schell] You said that you are facing Vienna with optimism. What is the reason for your optimism?

[Scholz] I think that the Warsaw Pact states are currently interested in disarmament. They have probably realized that an arms buildup as it has been practiced to date is not compatible with the necessary economic reforms. If a country like the Soviet Union spends 15 to 17 percent of its gross national product on armament, it can hardly be successful in economic reform within an appropriate period.

[Schell] What should be discussed and set down first in Vienna?

[Scholz] The approach is correct that first one has to agree on what is to be discussed in detail. This not only applies to the issue of immediately effective tanks against tanks, and planes against planes but to quality and deployment.

[Schell] Do you also expect the modification of the Soviet military doctrine to be explained clearly?

[Scholz] This Soviet military doctrine, which claims such a degree of troop strength that it should always be possible to deal a crushing blow to the opponent on his territory, must be overcome, because this involves the option of invasion, and this strategic goal has to be given up. However, in the end the means are decisive. Therefore, it is important that the means are limited in such a way that only defensive tasks can be fulfilled on both sides and at the same low level. This will require patience. I warn against any impatience.

[Schell] What do you intend to tell Soviet Defense Minister Yazov, when he comes to Bonn with Gorbachev soon?

[Scholz] I will again tell Mr Yazov about the exclusively peace-securing, defensive tasks of the Bundeswehr. I hope that he will seize the opportunity to visit regions of the Bundeswehr.

[Schell] Again back to the different figures in the comparison of armed forces: Can these differences be explained with different criteria for assessment?

[Scholz] Our side doubts some figures of the Eastern side, and there are also totally inexplicable things. I start with the number of soldiers. According to NATO calculations, it has 2.2 million soldiers in Europe, and the Warsaw Pact has 3.1 million. Now the Warsaw Pact says that we have 3.66 million soldiers, and it has only 3.57 million. This is a figure that is absolutely incorrect. The second issue is the tanks. NATO says that we have 16,424 tanks and the Warsaw Pact 51,500. The Warsaw Pact, on its part, says that we have 30,690 tanks and it has 39,470 tanks. We do not know what they call tanks. This is something that we have to clear up. It is, however, positive that the East admits to having a clear superiority in this field. However, we cannot see how they come to the figure of more than 30,000 tanks on our side. The third issue is the planes. According to our comparison,

we have 3,977 combat aircraft and the other side has 8,250. The Warsaw Pact says the West has 7,130 tactical combat aircraft, and it has 7,876. Then, the Warsaw Pact makes a distinction, saying that we have 4,075 attack aircraft and it has only 2,783.

These are figures that we cannot follow. In former times the Warsaw Pact already argued that a large part of its fighter aircraft cannot be included because they are purely defensive and destined for air defense. This is not correct, because fighter aircraft can be quickly turned into fighter bombers. In addition, we know from the observation of maneuvers that the Warsaw Pact also trains its fighter aircraft pilots for offensive fighter bomber flights. There are also considerable differences in the description of short-range missiles.

This means that in Vienna the definite figures of both sides have to be put on the table, and then the criteria for assessment have to be discussed openly. If it is possible to quickly come to a common basis for assessment and to common figures, this would be a first great progress.

**Chancellery Minister Schaeuble on Arms Talks
With U.S. Officials**
*LD/162191289 Hamburg DPA in German
1730 GMT 11 Feb 89*

[Text] Berlin (DPA)—In the view of Chancellery Minister Wolfgang Schaeuble, the FRG Government and the United States are in agreement on the main points in the arms sector. The single necessary decision, concerning a successor to the Lance short-range missile, does not have to be made before 1991, Schaeuble said in an interview in the Sunday edition of the *BERLINER MORGENPOST*.

During his talks in the United States, there was agreement that there should be no third zero solution and that there should be a decision within NATO on the over-all strategy in the early summer. Weapons systems with a range under 500 km must also be taken into account in this. At the same time a strategy for further disarmament is to be put forward. It is "very important" that before Schaeuble's visit, FDP Chairman Count Otto Lambsdorff had "also expressed precisely the same view" in Washington. After his talks with new U.S. President George Bush and Secretary of State James Baker, he is now "very optimistic that we have achieved understanding on this," Schaeuble said.

In connection with the participation by German firms in the construction of the controversial chemical weapons factory in Libya, the FRG Government's intention to impose legal penalties on future exports, which amount to participation in the construction of chemical or other weapons plants, were received "with great satisfaction" in the United States. Bush and Baker told him that "they never doubted the determination of the FRG Government to reject such exports and to rule them out in future

by legal means." "I believe that to this extent this matter is now closed," Schaeuble added.

Speaking about recent information from the U.S. Secret Service that West European firms are alleged to have been involved in the construction of chemical plants in other Arab countries, Schaeuble said that on this matter "nothing new and nothing specific has been said" to him. The FRG Government knew that in the first half of the 1980's a German firm had been involved in such business. "We took legal action against the firm at that time and lost the case."

**Differences Within Governing Coalition on SNF
Modernization Viewed**

*AU1002173589 Frankfurt/Main FRANKFURTER
RUNDSCHAU in German 10 Feb 89 p 3*

[Horst Schreitter-Schwarzenfeld article: "Linguistic Understanding Among Jurists"]

[Text] Bonn's liberal, good-humored foreign minister seemed to be unhappy. With his British counterpart, Sir Geoffrey Howe, Hans-Dietrich Genscher had once again quarreled about the fate of short-range nuclear missiles in Europe. Before journalists in the Foreign Ministry's guest house at Bonn Venusberg, the otherwise talkative German was stunningly silent. The guest from the island was entirely different. Thatcher's man said that they had agreed that there must be no "third zero solution," that the weapons systems should be kept up-to-date, and that "in our discussion we only expressed different views" on the period of time during which this has to be done.

There have been different views on such a time framework for a long time not only between the British and the Germans and not only within the Atlantic Alliance but also within the Bonn coalition. Foreign Minister and FDP politician Genscher formulated his ideas in one of his speeches as follows: "We are by no means under pressure of time. We are talking about short-range missiles which will be decommissioned in 1995 at the earliest." CDU politicians like deputy Bundestag floor leader Volker Ruehe consider the decision much more urgent. He says that when NATO will meet in London in June for its anniversary meeting, a "concrete" decision must be made. Defense Minister Rupert Scholz (also CDU) has always stressed that the rejection of a third zero solution (something the Bonn coalition parties seem to agree on) includes "the modernization" of nuclear weapons.

Does that mean that a new missile decision will be made in June? Do we have to expect a statement that the Federal Republic is ready to allow the deployment of new short-range nuclear weapons on its territory? Will a new version of the counterarmament [Nachruestung] battle that we had in the summer of 1981 be forthcoming, directly prior to European parliamentary elections? The course has not yet been set, but it must be assumed

that Helmut Kohl, CDU chairman, election campaigner, and Federal chancellor, will try to prevent such a development.

Kohl considers this "an issue that has by no means been fully discussed to the end," as he confided to the Federal news conference recently. He then rebuked his protege Scholz, because the defense minister had been too outspoken in declaring himself for modernization. Kohl said that "I do not consider public discussion useful at all at this point."

Whereas the positions of Scholz and Genscher are relatively clear, there is a considerable vacuum in the center of the Bonn decisionmaking spectrum. The security policy center formed by Kohl, Schaeuble, and Teltschik has publicly started to stifle major debates. By announcing an overall NATO concept, they presented a formula that they consider sufficient for the time being. However, we do not know the details of the secret efforts that are being made to agree on a concrete formulation with the United States, which would also be acceptable to the Kohl team. We can only assume that Wolfgang Schaeuble, chief of the Chancellor's Office and a self-styled Federal security adviser who does not always have a happy hand, will explore the possibilities of initial agreement during his current talks with staff members of the new U.S. President George Bush in Washington. When the new U.S. Secretary of State James Baker is in Bonn early next week, another opportunity will offer itself for detailed talks among Atlantic Alliance partners on modernization.

The Genscher camp is suspicious—officially, so to speak—of the foreign policy string pullers in the Chancellor's Office. People in this camp are surprised that they are not being informed any more. (Uneasiness was created not only because of Schaeuble's trip to Washington but also because the chancellor's adviser Horst Teltschik has been appointed the Federal chancellor's commissioner for Poland.) Meanwhile, a number of clarification talks have been held with Genscher. On Ash Wednesday [8 February], the former FDP chief propagated his course again: "Closing ranks." The actors are watching each other suspiciously. At least one of them, the chief of Hardthoehe [FRG Defense Ministry], Scholz, would like to speak his mind more often, but he cannot do so any more.

Various statements suggest that professor of law Scholz and attorney Genscher meanwhile have found a formulation on the basis of which it would even seem possible to "close ranks." Regarding the modernization issue, both now advocate "keeping up an option;" to the former, this is a minimum, to the latter, it is the maximum of what somebody can accept who, strictly speaking, wants to prevent the deployment of new nuclear weapons.

When such an option for modernization would have to be taken up, would have to be decided in the light of the

Vienna disarmament negotiations—that is at least the way Genscher views the development. According to his calculation, the conventional threat to West Europe could eventually be reduced to an extent that would make a response by nuclear deterrence unnecessary.

Just as the scribes quoted the Bible, Genscher always quotes the text of the communique on the NATO meeting in Reykjavik, Iceland, of 6 June 1987. This communique mentions an "overall arms control and disarmament concept," but not a deterrence concept. A "reduction in U.S. and Soviet ground-based, shorter-range nuclear missiles has been fixed in this text as one of NATO's negotiating goals. However, NATO has so far dodged negotiations on short-range systems. An attempt will now be made to corroborate this negotiating goal. However, even if Genscher were to win over Federal Chancellor Kohl for this objective, Sir Geoffrey Howe's chief in London's Downing Street would offer utmost resistance to such a course.

The advocates of "modernization," in particular U.S. Defense Secretary-designate John Tower, also quote a NATO communique in their argumentation. Regarding this issue, everybody in the West has his own "quotes from the Bible." The most important document for the United States is a paper which had been signed by the defense ministers of the Western alliance following a meeting of the Nuclear Planning Group at the Montebello luxury hotel near the Canadian capital, Ottawa, in 1983. This document says that the carrier systems of nuclear weapons must be "efficient and able to react." It adds that in the light of this realization, the ministers have agreed on a number of possible improvements.

The contents of this understanding which is laid down in a supplementary protocol is secret. Since then, it has been clear to the United States that the modernization decision was made long ago. The current debate on a deployment decision is considered unnecessary; "Montebello" just stands for "modernization." Federal Government circles meanwhile have also realized what "modernization" means in the final analysis: It not only means that old weapons will be replaced with new ones but it also means that a new weapon will be introduced to replace the "Lance" missile, of which there are 88 launching systems in the Federal Republic. After all, the Warsaw Pact has admitted in its recently published comparison of forces that the East is immensely superior in this respect.

Kohl Rejects Third Zero Option for Short-Range Missiles

LD1302160389 Hamburg DPA in German
1520 GMT 13 Feb 89

[Excerpt] Bonn (DPA)—Federal Chancellor Helmut Kohl has once again spoken out against a third zero option concerning short-range missiles. After a meeting of the CDU Executive on Monday [13 February] Kohl

said to journalists in Bonn: "I do not want a third zero option. And we will not agree to a policy of a third zero option. There will be no third zero option in the overall NATO concept."

Kohl said that the decision on the stationing of a follow-up system for the Lance short-range missiles which is to take place in 1995 will be due when "the usefulness of the Lance has ended". That would not be before 1991/1992.

The chancellor stressed that a policy of a third zero option was not possible with the present state of the world and the level of East-West relations. The Federal Government has said several times that it wishes to reduce the number of missiles to mutual upper limits. The individual details of this are a matter for the overall concept.

Although the chancellor rejects a third zero option at present, he is presumably keeping open such a possibility in case one day the process of disarmament allows it within the framework of the overall strategy. This was at least the interpretation of the Federal Chancellery Office of Kohl's other statement—in apparent contradiction to his attitude of rejection—that it was clear "that of course we are keeping this option open to us". [passage omitted]

Genscher: 'No Urgency' on Short-Range Nuclear Weapons Modernization

LD1402110489 Hamburg DPA in German
1030 GMT 14 Feb 89

[Excerpt] Hamburg (DPA)—The Lance short-range missiles stationed in the Federal Republic can, in the view of Federal Foreign Minister Hans-Dietrich Genscher (FDP), be used until 1995. At present there is no urgency for the technical updating of this weapon system with a range of up to 500 kms, Genscher said on Deutschlandfunk Tuesday morning.

An overall concept for disarmament and arms control has to be adopted this May. Concerning reports on differences on the modernization of short-range missiles which are said to have cropped up Monday during U.S. Secretary of State James Baker's visit to Bonn, Genscher said, according to Deutschlandfunk, that the question of replacing the Lance missile should not be a test for alliance loyalty. [passage omitted]

Firm Said To Export Missile Components to Libys.

Karlsruhe Finance Official Quoted

LD3001190389 Hamburg DPA in German

1749 GMT 30 Jan 89

[Text] Karlsruhe (DPA)—Highly valuable missile components have been transported to Libya according to a

report in the **BADISCHE NEUSTE NACHRICHTEN** (BNN) via a firm in northern Baden. As the newspaper, which is published in Karlsruhe (Tuesday edition) [31 January] reports, quoting Gustav Eduard Michaelis the president of the Karlsruhe Finance Office, this illegal export was discovered last year by customs investigators. An investigation was started on the possible violation of the law on the control of weapons of war.

Out of concern for the enquiries which were still in progress, the Karlsruhe Higher Financial Directorate refused to give further details on the extent of the arms dealing. The name of the firm was also not given. This is not the only occurrence of transportation of weapons to Libya through northern Baden, the paper quotes Michaelis as saying.

Further Details

LD3101172989 Hamburg DPA in German
1619 GMT 31 Jan 89

[Text] Munich (DPA)—The Munich I Public Prosecutor's Office has started further preliminary investigations into a Bavarian capital-based enterprise's possible export of illegal weapons to Libya. The Globesat Company for Applied Satellite Technology Ltd, according to Managing Director of Public Prosecutions Heinz Stocker, is suspected of violating the weapons control law and the foreign trade law. No statement was forthcoming from the company today.

According to Stocker, the firm is said for some years to have delivered electronic steering units "and then a whole string of testing and measuring systems" to Libya. The director of public prosecutions said that these technical appliances had been used or were to be used for the construction of missiles. The Karlsruhe Higher Financial Directorate had conducted relevant investigations and had now transferred the case to Munich.

The authorities in Baden-Wuerttemberg sent 29 files with approximately 4,000 pages to the Public Prosecutor's Office in Munich, under whose direction proceedings on possible weapons exports are also being conducted against five firms based in and around Munich, Stocker outlined. The papers from Karlsruhe have not yet been analyzed, and nothing is yet known about possible results. "There may or may not be something," said Stocker.

The customs Investigation Department of the Karlsruhe Higher Financial Directorate confirmed that investigations are being made "in long pending proceedings on the export of missile components." The **BADISCHE NEUESTEN NACHRICHTEN** had reported that high-grade missile components had been transported to Libya via a firm in North Baden. Here the newspaper referred to the president of the Finance Directorate.

Customs Authorities Detain Chemical Shipment to Libya

LD0202202789 Hamburg DPA in German
1919 GMT 2 Feb 89

[Text] Bremerhaven (DPA)—Seventeen container-loads of the chemical hexamethylene tetramine, which were due to be shipped to Libya, have been temporarily stopped by the customs authorities in the Federal German seaport of Bremerhaven. This is reported in the Friday [4 February] edition of the NORDSEE ZEITUNG, which is published in Bremerhaven.

According to the paper, the chemicals, which can be used to produce medicines and fertilizers and to manufacture high explosives, originated from Degussa AG in Frankfurt.

Suspecting several Federal German enterprises of having supplied Libya with materials and chemicals for the construction of an alleged chemical weapons factory, the customs authorities issued a ban on loading the chemical, according to the newspaper.

The chemical, the Bremerhaven paper further said, was due to be shipped to Barsa el Brega, [placename as received] in Libya. The consignment consisted of 102,000 sacks in 17 containers. It was said that the amount would be sufficient initial material for manufacturing nitramine-explosives for artillery ammunition, underwater projectiles, and missile fuel for a limited war.

On this issue, Degussa AG in Frankfurt told the newspaper: "The chemical does not have to be approved. We have been exporting it for years to a Libyan fertilizer factory which intends to use it to improve the trickling capability of ureas."

Construction Firm Stops Deliveries to Libya, Suspects Al-Rabitah Use

LD0302104189 Hamburg DPA in German
0939 GMT 3 Feb 89

[Text] Bensheim (DPA)—Sartorius Metal Construction Inc. in Bensheim (Bergstrasse District) does not intend to make prepaid partial deliveries for the "Tripoli Technology Center." This was the firm's reaction to suspicions that the steel doors, staircases, and aluminum windows it supplied were being used in the construction of a chemical weapons factory in Al-Rabitah. Josef Sartorius, head of the firm, stated today that when the contract was accepted the company had no indication of the Libyans' plans for this construction project. He proposed setting up an international information bureau where medium-sized firms could obtain information regarding the militarily suspicious nature of construction projects.

Spokesman Ost: Government Hopes for World CW Ban

LD0401104889 Hamburg DPA in German
1021 GMT 4 Feb 89

[Excerpt] Bonn (DPA) The Federal Government is expecting important progress from this year's Disarmament Conference in Geneva, which begins on Tuesday. It accords the negotiations on a world-wide, comprehensive ban on all chemical weapons particular importance, State Secretary Friedhelm Ost, Federal Government spokesman, said today in Bonn.

The ban should apply to the development, manufacture, possession, sales, transfer, and use of chemical weapons. The Federal Government, he said, is confident that effective control and inspection regulations could be found. The agreement must "also include the internationally monitored destruction of existing chemical weapons," Ost said.

Alluding to the international debate on the Libya affair, and world-wide chemical supplies to other crisis regions, Ost added that the Geneva negotiations round is "dominated by a growing awareness of the necessity of a deepening international disarmament process." The Federal Government, in coordination with states friendly to it, would undertake anything in order to make the Geneva Disarmament Conference a total and rapid success precisely by banning chemical weapons. [passage omitted]

Foreign Minister Genscher Urges Tighter EC Chemical Export Controls

LD0602124789 Hamburg DPA in German
1235 GMT 6 Feb 89

[Excerpts] Bonn (DPA)—On the eve of the new round of disarmament talks in Geneva on chemical weapons, the Federal Government is aiming for "a growing awareness" of the necessity of a total ban, said Government spokesman Friedhelm Ost on Monday. [6 February] [passage omitted]

In a radio interview, Federal Foreign Minister Hans-Dietrich Genscher on Monday announced close cooperation with the EC Commission in order to implement tighter export controls which should start with basic chemical substances. In the EC, furthermore, "political possibilities should be discussed to make it impossible to manufacture chemical weapons in Libya," Genscher said. This statement was not explained further.

FDP Chairman Lamsdorff Alleges U.S. Computer in Al-Rabitah

AU0602120989 Hamburg WELT AM SONNTAG in German
5 Feb 89 p 1

["r" report: "U.S. Computer in Al-Rabitah?"]

[Excerpt] Bonn—According to FDP Chairman Otto Graf Lambsdorff, the central processing unit of the

disputed Libyan chemical plant in Al-Rabitah is of U.S. origin.

Lambdorff allegedly told Saarland radio: "Not only German but also other foreign companies were involved. According to reports, the central processing unit in Al-Rabitah was produced in the United States." Despite this fact, however, it will be necessary for us "to improve our export controls and to punish those more severely who violate the existing laws," Lambdorff stressed. [passage omitted]

Spain Supports FRG Initiatives To Bloc CW Spread

LD0602005589 Hamburg DPA in German
2135 GMT 5 Feb 89

[Text] Seville (DPA)—During the German-Spanish consultations in Seville today Federal Foreign Minister Hans-Dietrich Genscher received Spanish support for the new Bonn initiatives to prevent the spread of chemical weapons. Francisco Fernandez Ordonez, Spanish minister of foreign affairs, who chairs the EEC Council of Ministers for the present 6-month period, assured Genscher that he would try to get a common EEC position. During the EEC conference on European political cooperation on February 14 in Madrid the EEC should try to call for a meeting of the 'Australian Group' of 19 Western industrial states, which favors the control of exports serving the manufacture of chemical weapons.

Moreover, Genscher wants the EEC to accelerate the passing [of a law] with regard to the exports of components that can be used to manufacture chemical and bacteriological weapons. These regulations should be discussed during the EEC meeting of foreign ministers on 21-22 February in Brussels.

Further, Genscher will discuss these questions on 12-13 March with new U.S. Secretary of State Baker. According to Genscher, the EEC should, for example, establish contacts with the Arab League so that it [the League] can exert influence on Libya not to manufacture chemical weapons. The minister—like Fernandez Ordonez—favors the Geneva Conference's successful conclusion of a ban on the manufacture of chemical weapons before the end of the year.

Salzgitter Manager Denies Involvement in Libyan Plant

AU0602134089 Hamburg DER SPIEGEL in German
6 Feb 89 pp 48-49

[Interview with the manager of the Salzgitter company, Ernst Pieper: "The Deceit Was Apparently Perfect"—place and date not given]

[Excerpt]

[DER SPIEGEL] Do you think you have contributed to increasing Al-Qadhdhafi's poison gas potential?

[Pieper] No. One thing is certain: The Salzgitter company has apparently been deceived. In 1984 we received

an order from Imhausen Chemie to provide a limited part of the engineering for a chemical plant where primary and intermediate pharmaceutical products are to be produced. We had to hand over these drawings to a German customer in the FRG. We were told that the plant would be established in Hong Kong.

[DER SPIEGEL] The auditors of your firm discovered a letter from Imhausen, together with a telex, which contains the name of Al-Rabitah. Was nobody on your staff surprised about this?

[Pieper] Immediately following the emergence of information about the involvement of the Salzgitter Industriebau company in a project called Pharma 150 in Libya, our internal auditors started intensive investigations. After 14 days of searching, a telex in English was discovered by our auditor, dated February 1985, which contains the word "rabt," "rasta," and "rabta." At the time, these words were not identified as names of places by the employees who were in charge of the project.

[DER SPIEGEL] The managers of your subsidiary did not come across the word Al-Rabitah either?

[Pieper] Those who were responsible for this business deal never saw this telex which only contains electronic data. They never came across the word Al-Rabitah.

[DER SPIEGEL] How have you been deceived?

[Pieper] Through Imhausen we received plans and arrangement drawings from Italian and French companies, showing the detailed equipment of the plant. On this basis, we designed the foundations and the system of electrical lines and pipelines. According to our knowledge, nearly another hundred German, European, and U.S. enterprises participated in the Pharma 150 project, and so none of the companies really knew what was going on.

[DER SPIEGEL] Is it possible for an enterprise to prepare plans of plant parts without being informed about the purpose and the overall concept?

Of course. The part of the engineering that was planned by us, including electrical equipment and pipelines, is not limited to specific application. It frequently happens that, in order to protect the know-how, contractors do not inform us about the intended use of the pipelines. The contractor, however, is obliged to provide information about the environmental conditions to enable us to prepare the detailed engineering. We were told, for example, that there would be no dust or sand in the entire plant area. I do not think that this is exactly a hint that the plant was to have been built in the Libyan desert. [passage omitted]

Government Abandons Short-Range Missile Plan
LD0802151389 Hamburg DPA in German
1406 GMT 8 Feb 89

[Text] Bonn (DPA)—The Federal Government has given up for the moment plans to build a conventional short-range missile with pinpoint accuracy. Government spokesman Friedhelm Ost told the press in Bonn on Wednesday that Federal Chancellor Helmut Kohl, in agreement with Federal Defense Minister Rupert Scholz, had decided on Wednesday "not to pursue this program any further."

According to Ost, Kohl and Scholz had agreed that the option would be totally abandoned if disarmament negotiations lead to a conventional balance at a low level. Ost said that the decision had been made in view of positive disarmament signals from the Warsaw Pact.

The plans, which had come to light through a documentary by the TV current affairs program "Report", had caused a stir and intensive discussions between the parties in recent days. "Report" had claimed that the matter concerned the development of a nuclear missile called KOLAS. Ost denied this vehemently once again on Wednesday.

Ost reminded those present that the Federal Republic has dispensed with the construction and possession of nuclear, biological, and chemical weapons since 1945. This remains unchanged.

Press Views Criticism of Missile Project
AU0902114189 Cologne Deutschlandfunk Network
in German 0605 GMT 9 Feb 89

[From the press review]

[Text] One of the topics discussed by the press today is the Federal Government's decision to suspend plans to build a new conventional short-range missile.

FRANKFURTER ALLGEMEINE comments as follows: "In the increasing excitement about the project, financed by the Defense Ministry, to have Messerschmitt-Boelkow-Blohm develop a surface-to-surface missile with a range of less than 500 kilometers, the necessary ability to differentiate is threatening to get lost. There are no legal obstacles for the Federal Republic regarding such a project. Whether it was politically wise to start such a project at all is another question. The hurry with which it has been dropped now that the matter has leaked to the public may be viewed as an answer to this question. Whether the Federal Republic can recommend itself on this basis as a partner of often-demanded military cooperation, is a different thing."

The Munich daily SUEDDEUTSCHE ZEITUNG writes: "Anybody who wanted to know, did know the

concept for a new and only conventionally equipped missile. So the news value of the report's disclosure was limited. In addition, very many critics of the present arms policy—including most SPD experts—have demanded the partial replacement of manned fighter bombers by unmanned systems which may not only be cheaper, but would also considerably reduce the number of low-altitude training flights. The missile project is precisely such an unmanned system. Therefore, those who, on the one hand, want a different defense structure, but on the other hand condemn relevant considerations according to the motto that every missile is evil and nuclear, are dishonest."

We read in FRANKFURTER RUNDSCHAU: "If those who at present hold responsibility in Bonn were not largely to blame, we could have sympathy with them. They are luckless, because whatever they start is never carried out. The impression may be wrong, but they have developed a negative mastery in reacting to the East's disarmament initiatives by demonstrating a lack of logic, insecurity, and reluctance. Whenever the USSR and its allies talk about reduction, the Federal Republic together with its Western friends above all talks about new weapons systems, or gets talked about in this connection. That also holds true for plans for a German precision missile which, 1 day after a critical television broadcast, have now suddenly been dropped in the interest of better judgment. That does not create a convincing impression."

BRAUNSCHWEIGER ZEITUNG arrives at the following conclusion: "The drawer is the proper place for such plans for the time being. However, the condition that Chancellor Kohl made in this respect is also reasonable. Giving up the modernization of our conventional defense only makes sense as long as there is hope for balanced disarmament. Such balanced disarmament must not be interfered with. If relevant negotiations yield results, so much the better. However, the present Soviet superiority would not be acceptable in the long run, and it is even increasing as western deterrence, which so far has helped ensure peace, is being reduced. Even less acceptable would be a modernization that is only taking place in the East, but would be politically neutralized here."

We read in KOELNER STADT-ANZEIGER: "The provisional end to Bonn's missile plans raises questions that have not yet been answered convincingly in the West. Whereas the East needs disarmament in the interest of modern civilian production, the problem that the NATO countries have is just the opposite. For instance, the INF Treaty has created huge production gaps with the Pershing producer in the United States. It is no secret either that the West German Messerschmitt-Boelkow-Blohm concern is constantly trying to get new orders. Therefore, if conventional disarmament is to be carried out, it is high time for us to find alternatives for highly productive forces."

Intelligence Service Said To Have Had Evidence of Libyan CW Plant in 1980

Chancellery Report to Bundestag LD1302204589 Hamburg DPA in German 2007 GMT 13 Feb 89

[Text] Bonn DPA—The Federal Intelligence Service (BND) already had pointers to the possible construction of a factory for chemical weapons in Libya in 1980 but ruled out conscious participation by German firms. This emerges from a 100-page report which head of the Federal Chancellery, Wolfgang Schaeuble has put together for the Bundestag.

The report which became known in Bonn today, says that on 22 April 1980 the BND reported that Libya intended to develop a plant for manufacturing chemical weapons and a system for their extraction with the help of unnamed East and West German firms. The BND considered it conceivable that this might be a question of a standard chemicals factory. "Conscious participation by German firms in establishing a weapons plant was ruled out."

On 12 February 1981 the BND reported that Libya intended to purchase the chemicals in Western Europe necessary for the manufacture of chemical weapons, for example in Great Britain and Italy. In 1986 it was stated, on the basis of information from foreign intelligence services, that in October of the previous year 100 tonnes of sodium fluoride might have been shipped to Libya on the Panamanian freighter "Capira" from Zeebrugge.

In mid-October 1988, the BND and the Federal Customs Institute discussed the matter. However there was no information that chemical weapons were being manufactured in Libya or that German supply firms had consciously collaborated on this.

The Schaeuble report, which contains a comprehensive chronology, will be passed on to the Bundestag after approval by the cabinet on Wednesday. The parliament will debate it on Friday.

Further Details AU1502113789 Hamburg DIE WELT in German 15 Feb 89 p 1

[“ms” report: “First Pointers to Libyan Poison Gas Plant Already on 22 April 1980”]

[Text] Since 22 April 1980 the FRG Governments under Chancellors Schmidt and Kohl have been confronted by intelligence services and other sources, in particularly also by the U.S. Administration, with the suspicion of German participation in the construction of a poison gas factory in Libya. This also applies to Foreign Minister Genscher (FDP), in whose office important pieces of information all came together.

According to information available to DIE WELT, the worried indications provided by the U.S. Administration climaxed in a letter by Secretary of State Shultz to Foreign Minister Genscher on 11 November 1988. In this letter, which was conveyed to Genscher on 12 November, Shultz expressed his concern about the "increasing proliferation of chemical weapons" by referring to the latest example of Libya. At the same time, in this letter Shultz announced that this problem would have to be discussed during Chancellor Helmut Kohl's visit to Washington, which was scheduled for 15 November 1988. In addition, Washington would "provide the chancellor with an intelligence briefing." According to information available to DIE WELT, on 20 October 1988 the chancellor was "briefed in summary on intelligence findings on the Libyan efforts to build a combat agent plant" by a paper from the head of the department of the Federal Intelligence Service (BND) in the Chancellery, Jung. This paper also mentioned a potential involvement of the company Imhausen in Lahr.

The more-than-100-page report, which is still being kept secret and is to be discussed and approved in the Federal Cabinet, contains further details. It gives a chronological survey of the affair. Yesterday, after a 2-hour ministerial debate in the Chancellery, it was supplemented.

According to information available to DIE WELT, this report contains, among other things, the following statements: The first BND report on this matter was received by the Chancellery and the Foreign Ministry on 22 April 1980. In this report the BND says that "a plant for the production of chemical combat agents and a system for their manufacture [Ausbringung]" is to be developed in Libya with the help of unnamed East and West German experts. Over the following years there were repeated indications, which were, however, partly contradictory. A more precise report came from the German Embassy in Moscow on 5 July 1985. The embassy reported to the Foreign Ministry on information from a "non-Eastern source," according to which "a company called Imhausen, Lahr (owner Dr. Hippensiel), has concluded a contract for the delivery of a pharmaceutical project in Hong Kong." A German nationalized company was allegedly involved. The telegram from the Embassy continued: The location of the project is unknown. The special wishes of the client—glass instead of steel pipes, which implies the production of poison gas—and the secrecy of the location have caused doubts among experts about whether this is a pharmaceutical project in Hong Kong. Libya had been mentioned as the actual country of destination.

This report from the German Embassy was conveyed to the FRG Economics Ministry and to the BND with a "request for further investigation." On 19 July 1985 the BND reported to the Foreign Ministry: "There are no findings concerning the embassy's report. Imhausen is sufficiently competent in chemical matters to make deliveries of all kinds. The assumption that the change in

the order from glass to steel pipes permits the deduction that combat agents might be produced is incorrect."

The U.S. Embassy in Bonn became active for the first time on 25 March. It sent a non-paper to the Foreign Ministry, however, with the incorrect statement that a German company was negotiating with Libya on the sale of equipment used in defense against nuclear, biological, and chemical weapons.

On 18 May 1989 another non-paper from the embassy was received, in which the "concern about the participation of FRG companies in the delivery of chemical facilities to Libya and the reequipment of Libyan airplanes for mid-air refueling" was expressed. On 21 September 1988 the U.S. Embassy in Bonn presented an informal paper to the Foreign Ministry, "according to which Libya has established its capability of producing chemical weapons with the help of West European companies and is on the point of starting serial production." In the paper the U.S. Administration calls for "preventing" any support to Libya in the "construction of its own facilities for the production and use of chemical weapons."

On 13 October 1988 the BND reported to Bonn: Libya was "very likely" on the brink of achieving the "long striven for goal of being able to produce its own chemical combat agents." The focal point obviously is the plant in Al-Rabitah. On 18 October 1988 the BND reported on a message from a "partner service of 14 October 1988," according to which in August 1988 "employees of Imhausen allegedly participated in putting into operation the supposed combat agent plant." The BND added that it "had recently also learned from other sources" about the "involvement of Imhausen."

On 20 October 1988 Kohl was informed. On 10 November 1988 the "concern" of the United States about Libya's ability to produce poison gas was expressed in a telegram report of the German Embassy in Washington to the Foreign Ministry. In addition, the report announces "a special briefing for the German delegation on this issue" during the chancellor's visit on 15 November 1988.

On 11 November 1988 the Foreign Ministry worked out a document for Foreign Minister Genscher, which recommended that he explain in Washington that so far no indications of violations of the foreign trade law by German companies have been found. There are also no "conclusive findings" on the activities of Germans in Libyan facilities. "Even if this were the case, the FRG Government would not have any means to act against the mere participation of Germans in such projects." On the same day, Secretary of State Shultz's letter arrived in Bonn. The "intelligence briefing" announced in it was then held by CIA Chief Webster in Washington on 15 November 1988.

Company Accused of Toxin Sale to Iraq
*AU3001170389 Hamburg DER SPIEGEL in German
30 Jan 89 pp 16-18*

[Unattributed article: "A Hundred Times More Lethal Than Chemical Weapons"]

[Excerpts] With help from the FRG, Iraq is doing research in biological weapons and developing them. The Federal Intelligence Service [BND] has now confirmed what Government spokesman Friedhelm Ost wanted to cover up: With the assistance of a Lower Saxonian businessman, a Bavarian enterprise near Munich supplied samples of highly toxic mycotoxins, which experts describe as particularly suited for acts of sabotage and terrorism. [passage omitted]

A few aspects of how FRG businessmen and scientists got involved in weapons research in Mesopotamia are currently becoming known. An old contact of Baghdad in the Lower Saxonian city of Neustadt am Rübenberge proved to be useful for the Iraqis in their search for mycotoxins. Josef Kuehn, 40, is doing all kinds of export deals there with the Plato-Kuehn company. In 1986 Kuehn found Iraq the desired supplier of toxins—the Sigma Chemie company of Oberhaching near Munich, which specializes in supplying biochemicals for research institutes, and which is the German subsidiary of the U.S. Sigma company from St. Louis. Finally in 1987, after the deal had been delayed due to unclear payment methods, the toxin, declared as hazardous merchandise, was shipped from Hannover to Baghdad by air.

Neither FRG customs authorities nor the Federal Economic Office had any objections, because the amounts were very small. At a price of DM60,000 Iraq received 100 milligrams of HT-2 mycotoxin and over 100 milligram of T-2 mycotoxin. Kuehn now says he does not know what the Iraqis needed the poison for; they always spoke about "analyses," Kuehn said.

The BND put it more precisely: Iraq was able to benefit even from these small quantities; it was possible "to use it for its own biological weapons research and for, among other things, animal experiments."

The HT-2 and T-2 agents, which belong to the group of trichothecenes [Trichothecene], have been of particular interest to biological weapons researchers since the sixties. Unlike in earlier days, when experiments using live bacteria of plague, cholera, anthrax, or typhoid fever were carried out in biological weapons laboratories, HT-2 and T-2, which are produced by organisms such as mould fungi, are regarded as more effective by military experts.

The Stockholm Sipri Peace Research Institute noted that toxins can be developed in such a way that they become "a hundred times more lethal" than current chemical warfare agents. Theodore Gold, head of the Pentagon's chemical weapons program until the mid-eighties,

believes that biological weapons are developed in the form of mycotoxins, not least because they become effective so quickly.

With regard to the mycotoxins which the FRG supplied to Iraq, Sipri notes that skin contact, inhalation or oral ingestion can lead to complaints or death. Mycotoxins, which are highly effective in minute quantities and, moreover, heat-resistant, can be traced, identified, and neutralized only with great difficulty. The complaints that are caused by these poisons are difficult to diagnose and treat. According to Sipri, toxins are particularly well suited for acts of sabotage, and, as experts fear, for terrorist attacks.

Last week, the BND supplied further information: The toxins which the FRG delivered to the Arabs had lethal effects in animal experiments, and could cause cancer in man, even when heavily diluted.

The intelligence service learned about the supply of the toxins by coincidence. As a result of anonymous information, export merchant Kuehn was arrested on 30 September 1987 on the grounds of having worked as an agent for the Iraqi military intelligence service. Moreover, he was accused of having gathered information for Iraq from pilots in Europe who were seeking employment with Iraq's wartime enemy, Iran.

During the interrogation—Kuehn was on remand until mid-December 1987—the businessman suddenly supplied the information on the deliveries of mycotoxins. Because of this, he was not sentenced. Preliminary proceedings for alleged involvement in the Baghdad intelligence service were suspended by the state prosecutor after payment of a DM25,000 fine.

However, as was made public by the Chancellor's Office in January concerning this case, the BND and the Federal Office of Criminal Investigation, which had had information about the sale of mycotoxins for some time, reported by mistake that Kuehn had been "convicted." The responsible department rendered it as "a conviction that is non-appealable," and this is what Government spokesman Ost spoke of in public.

Later, Ost took back what he had said: The statements that were made concerning the bacterial weapons discussion on the conviction of a German citizen are not correct: "They were based on incorrect information by the BND."

This denial has had a double purpose: The BND, which had fallen out of favor with Chancellor Helmut Kohl for its high-handed information policy, was to be rebuked, and the public was to be given to believe that there was nothing true about the supply of mycotoxins from the FRG to Iraq.

Greens Spokesman Alleges FRG Role in

Biological Weapons Development

AU0302151089 Frankfurt/Main *FRANKFURTER RUNDSCHAU* in German 3 Feb 89 p 2

[Karlheinz Karish report: "Malta Fever and Rabbit Plague"]

[Text] Even though, according to its own reports, the FRG Defense Ministry is only preparing for protection against bacteriological weapons, through research orders to universities and institutes it is involuntarily making sure that the knowledge about how bacteriological weapons can be developed is spread. This accusation was made by molecular biologist Manuel Kiper, expert on bacteriological weapons of the Greens' Bundestag group. According to his information, systems for the quick detection of potential bacteriological weapons, such as Malta fever and rabbit plague [hasen pest], were given to Egypt and Hungary by the Hannover Veterinary College. In Kiper's view, this also violates the regulations of the foreign trade law, whose export list makes the export of vaccines and detection systems for bacteriological weapons subject to permission.

"The detection methods and vaccines developed at the order of the FRG Defense Ministry," Kiper says, "give the threshold countries the know-how and the possibilities to deal with these dangerous viruses." And this knowledge, which is published by international technical magazines and is financed by Bonn, "is now spreading throughout the world."

Even though the FRG renounced the production and use of bacteriological weapons in 1954 and signed the international bioweapon agreement in 1972, research on bacteriological weapons is becoming "increasingly bolder" in Kiper's view. According to an extensive list he has compiled, there are 150 projects at the moment. The title of the orders, which are worked on by research institutions all over the FRG, can be identified only by experts. "Studies for the active immunization against the A-toxin of *Clostridium perfringens*," for instance, are aimed at producing a vaccine against anthrax bacteria. The project "immunoprophylaxis against arbovirus infections" follows a similar direction. Kiper says that one can only "surmise" what an enormous amount of knowledge the FRG Defense Ministry has accumulated over the past years because of this research.

Are the researchers aware of their responsibility, do they feel uncomfortable when the military finances their projects? Professor Dieter Strauch of the Veterinary Institute of the Stuttgart-Hohenheim University, who experimented with harmless—as he expressly stresses—anthrax bacteria until 1983, says: "No, why should I be uncomfortable? I have no influence on what other people do with our results." He at least does not find it strange that the military finds his studies about the spreading of test anthrax bacteria among animal sheds very interesting. "You can use any microbiological research for

bacteriological warfare," Professor Strauch stresses, "no one is safe against this." There are "hundreds of publications" all over the world in this field every day.

Professor Oskar-Rueger Kaaden, head of the Veterinary College, also denies the assumption that research is being done for bacteriological weapons. Research in Hannover serves the struggle against animal illnesses. The fact that this research—in the field of alpha viruses, for instance—is also interesting to the military, has nothing to do with this. "The research is not secret," Professor Kaaden stresses, "upon request we give small amounts of serums and chemicals on which we have published articles to other universities for free." This is an international practice. However, never have samples been given to Iran or Iraq. The monoclonal antibodies developed in Hannover—these are antibodies of one single type, which only react to certain viruses or bacteria—have nothing at all to do with bacteriological weapons, he says.

FRANCE

Defense Minister Chevenement on Conventional Forces Talks

LD0502132389 Hamburg DPA in German
1223 GMT 5 Feb 89

[Text] Baden-Baden (DPA)—French Defense Minister Jean-Pierre Chevenement called on the Federal Republic and France to cooperate more closely in armaments. Chevenement said on South West Radio today that this cooperation could extend to space as well. He criticized the situation that each country had, to date, developed its own arms projects, which is very expensive. The construction of a joint defense industry is a problem for Europe because a powerful arms industry is the precondition for the continent's defense.

Chevenement underlined his country's desire for success in the East-West negotiations on conventional disarmament. France also hoped for a democratic evolution in the Soviet Union arising from a positive result to the tr. s. The elimination of the imbalance in armed forces between the Warsaw Pact and NATO should be the objective of the negotiations. When questioned whether France is concerned about the decreasing feeling of military threat in the Federal Republic, Chevenement opined that the disarmament initiatives of the Soviet state and party head, Mikhail Gorbachev, are a good thing. He hoped that this policy could be turned into reality. To date, one had only heard speeches.

SWEDEN

Potential Role For *Tellus* Satellite In Arms Verification

52002406 Stockholm *INTERNATIONELLA STUDIER*
in Swedish No 5, 1988

[Article by Hans-Henrik Ronnow: "Blue Eyes In Space"]

[Text] Sweden is trying to convince other countries to invest at least several billion in a surveillance satellite for

the sake of peace. But only those who allow themselves to be monitored would be under surveillance.

That may seem like a small—and expensive—step toward a more peaceful world. But the *Tellus* satellite project may turn out to be far more than what the diplomatic proposal promises.

There has been one main thought behind Swedish efforts to achieve disarmament and peace. Mistrust and fear between states and blocs must be reduced. The European security conference in Stockholm on confidence building measures was the result of a major diplomatic effort by Sweden.

But the Swedes have also tried to make peace with the help of modern technology. The Defense Research Institute (FOA) in Sweden was a pioneer in developing the seismic technology to "hear" distant nuclear explosions through vibrations in the earth. These seismic stations had a decisive role in the partial test ban agreements that were concluded between the superpowers.

Verification

Precisely the possibility of verifying that the various parties live up to the agreements on disarmament and confidence building measures that they have signed has proven to be decisive in reaching these agreements in the first place. So far, the monitoring has been done primarily by the enormous intelligence organizations of the superpowers: the "national technical means," as it is so discreetly put. Among these "means," the so-called spy satellites play a prominent role.

But the intelligence agencies of the big powers never show their pictures. Other nations and the people of the world have to rely on what the Americans and Russians want to tell them.

Civil Space Technology

The civil space technology that is available today has broken the monopoly of the major powers on surveillance satellites. With pictures from the civil earth observation satellite SPOT, 92 French-owned and 6 percent Swedish-owned, and the American Landsat, for example, military objectives anywhere on earth can be studied. A specialized Swedish news agency, *Space Media Network*, has provided the world press with pictures and analysis of Soviet bases on the Kola Peninsula, Chinese medium-range missiles in Saudi Arabia, and Pakistani facilities for developing nuclear weapons. Sweden already has an international reputation as a center for independent satellite surveillance.

Now it is often pointed out, mainly for diplomatic reasons, that SPOT is not at all intended for such activities. The civil observation satellites are designed for studying the earth's resources, monitoring logging

volume, and map drawing. This does not require the same resolution as satellite surveillance.

Landsat has a resolution of 30 meters. This means that objects smaller than 30 meters on the earth's surface usually cannot be distinguished. The SPOT pictures, which are the sharpest satellite pictures of military interest available on the open market, have a resolution of 10 meters.

Even though the SPOT pictures provide much more information than expected, this resolution is seldom sufficient for monitoring agreements on arms limitations or for serving as an alarm for military activities that could threaten peace.

This is the need that the proposed Tellus satellite system would fill. According to a technical study undertaken for the Foreign Ministry by Rymdbolaget, in cooperation with the Defense Research Institute (FOA) and the Defense Staff, a satellite with a resolution of just under 2 meters would be launched. They believe that pictures from a satellite of this type would reveal nuclear weapons, missiles, tank columns, and fighter planes.

The Foreign Ministry intends to use this capability primarily to monitor disarmament agreements and other confidence building and security measures. At the European security conference in Stockholm, for example, it was agreed that all countries would be required to announce large-scale maneuvers in advance. With a new "eye" 600 km in space, the parties to this agreement could detect violations.

Common Security

The Swedish Foreign Ministry stressed that the Tellus system should be an integral part of international agreements on confidence building measures. The nations should agree to watch each other from space for the sake of "common security."

That, in itself, would be a confidence building measure. But the disadvantage of making the satellite system dependent on international agreements is that many nations—particularly those that appear most threatening—would hardly agree to far-reaching surveillance measures. The country that believes it has the most to hide determines how much it may be watched.

Thus, the nearly 3 billion kronor the satellite would cost would not exactly provide scrupulous monitoring for the sake of peace.

But when the time comes for the politicians to make a decision on the "peace satellite," they will be in a position that is just as unusual as it is pleasant. The ideal and the monetary advantages point in the same direction.

When Foreign Minister Sten Andersson mentions France and Japan as countries that may be interested in

cooperating, it is not primarily because these countries would be interested in making idealistic sacrifices for the cause of peace. But both have extensive aerospace industries that would welcome new orders. The glory days of Swedish space technology will soon be a thing of the past unless major new projects are started.

In addition, it is not certain that the ability to monitor various threats to peace will be as modest as indicated in the Swedish proposal. Satellite pictures are still surrounded by a certain indecent air of espionage. Proposing, in the beginning, a satellite of limited range that is subject to international agreements may dampen some of the harmful feelings defense politicians in many nations could hold toward the idea of what these pictures could reveal in their own countries.

Gradually, as the public and politicians become accustomed to seeing civil satellite pictures of "top secret" military facilities on TV and in their newspapers, a more relaxed attitude toward spies in the sky would certainly develop.

International Law

At the United Nations Committee on Space, several countries have attempted to use international law to limit the possibility of detailed surveillance from space. The Soviet Union, with the support of India, has proposed making 50 meters the best possible resolution for civil satellites.

But not even those who made this proposal can take it seriously any more. Many existing civil observation satellites already have better resolution.

The Soviet Union has repeatedly seen its military installations in the world press in the form of SPOT pictures with a resolution of 10 meters, without even protesting. Instead, the Soviet satellite picture firm Soyuzkarta has offered the world market 10 times as sharp as those the Soviet diplomats wanted to ban—although these pictures have only shown a few areas of little military interest.

Since it is generally known that the Soviet Union and the United States see much more than what a "peace satellite" could show, a satellite of this kind could hardly be seen as a serious threat to their national security.

France reached this conclusion 10 years ago. At a special United Nations disarmament conference in 1978, France proposed establishing an international satellite surveillance authority, the ISMA or International Satellite Monitoring Agency. The proposal was killed by the disapproval of the superpowers and by the unwieldy structure of the proposed organization. It was impossible to persuade all the nations of the world to accept more surveillance.

Intelligence Material

Even though the Swedish proposal is linked to the European security conference, no limitations have been set on how the pictures could be used. This would be determined through negotiations and political debate.

The material contained in the proposal leaves open many options for how this work would be organized—especially concerning who would have access to data from the satellite. One alternative is called "multinational national technical means." This linguistic monstrosity is a discreet expression of what this is really all about. Tellus could function as an international service for national intelligence agencies.

The Swedish study speaks with great expectation of what we might see in areas surrounding Sweden. This makes an international satellite system a tempting offer to the national security policy makers of many nations.

Providing secretive intelligence bureaucracies and more or less power play-oriented ministers in a number of capital cities with a better basis for asserting their own interests may seem to be something completely different from a common effort for peace.

Nevertheless, an international satellite surveillance system could eventually call forth more joint initiatives to prevent war and threatening arms build-ups. After all, a forum for initiatives of this type has existed for over 4 decades: the United Nations. Satellite pictures could be the joint property of the Security Council and a particularly useful tool for United Nations peace keeping operations.

More And More

Today, it is no longer useful for nations to oppose this trend. They will still have to accept the fact that more and more people will be looking down on them from space.

France is developing a spy satellite of its own, the Helios. In September 1988 Israel launched a satellite, to provide itself with a satellite surveillance system, among other reasons.

The Indian Government has an advanced space program and is trying to play the role of a major power in Southern Asia. India has been at war repeatedly with its neighbors Pakistan and China. One of them, China, already has surveillance satellites of its own. It is only a matter of time before the Indian intelligence agency has access to data from space.

And for many other larger nations, intelligence satellites could be one way to justify expensive and prestigious space programs.

Thus, how to stop the placement of new monitoring equipment in space is no longer the most urgent security

question. A country's security is better served by gaining access to pictures that show what is happening in nearby countries.

Unavoidable Spread

Since more and more countries are becoming better equipped to monitor various threats to peace, initiatives are possible for preventing the outbreak of armed conflicts or threatening developments in military arms build-ups. In itself, disseminating the information will reduce the ability of individual countries to suppress what has been discovered by using political manipulation or power plays. A country such as Israel, for example, is able to pressure American policies to the extent that Washington sometimes must remain silent on an event that could threaten the interests of both Washington and the world.

In the final analysis, it is the increasing spread of information that could make the satellite a tool for "common security."

The Swedish report discusses the chances of keeping picture data from the satellite "confidential." Its somewhat concerned conclusion is that this would be extremely difficult.

Democratic Control

In the long run, it would probably be impossible. Sooner or later, it would be in someone's interest to release pictures to the public. If many nations are involved, it would be difficult to punish anyone for "violating their oath of silence." Once this has happened several times, the media and researchers would also press to gain access to data that affects the common fate of us all.

It will not be easy for the politicians in charge to explain to people why they may see certain satellite pictures, but not others, on TV and in the newspapers. In all its modesty, the Tellus proposal is a giant step toward democratic control over fateful issues such as war and peace.

And here, of course, is the real stumbling block. Hostile governments know many of each other's secrets. Still, they insist on keeping the public in the dark. That is only human. All government ministers hate having their wisdom and honor questioned in public with embarrassing facts.

Perhaps even the most ardent advocate of peace would shrink from the thought of this.

How It Works

The proposed verification satellite would be based on the same principle as existing civil earth observation satellites. The satellite would move in an orbit around the earth, passing in the vicinity of the poles on each revolution in a near-polar orbit. Due to the earth's

rotation, a line on the earth's surface directly under the satellite, the ground track, will move slightly to the west on each successive revolution. As a result, when the satellite has made a sufficient number of revolutions, every point on earth will have been directly under the satellite at one time or another.

The pictures are not taken by a camera. Instead, a digital picture technology is used. After the sunlight that is reflected from earth has passed through the lens of a telescope, it is recorded in matrices or rows of semiconductor elements, CCD's (Charged Coupled Devices).

Pixels

A CCD matrix of this type contains several thousand elements. Each element measures the light intensity in its "own square" and assigns its picture element or pixel (picture element) a value on a gray scale.

At every instant, the instrument records a strip of pixels corresponding to a segment of the earth's surface across the satellite's ground track, similar to the way in which a broom moves across a floor. The strips of pixels are recorded one after the other as the satellite moves across the earth. (This technique is called "pushbroom.")

The gray scale values of the pixels are converted into computerized ones and zeros and sent by radio to a ground station.

If the satellite is below the horizon with respect to the ground station, then the picture data can be stored on recorders on board the satellite and then retrieved at a signal from a ground station, such as Esrange in Kiruna, when it comes within range.

Scenes

On earth, computers convert the scale values of the pixels into rectangles with the corresponding shades of gray. When put together, they form scenes. A scene is a square whose sides correspond to the satellite's field of vision. A SPOT scene, for example, consists of a piece of the earth's surface measuring 60 x 60 km.

Similarly, each pixel corresponds to a smaller square on the earth's surface. SPOT pixels, for example, are 10 x 10 meter squares of earth. The Tellus pixels would be 1.8 x 1.8 meters.

Since the pixels have a single shade of gray throughout, the pixel size is a measure of the picture's smallest elements. For this reason, we say that SPOT has a geometric resolution of 10 meters.

The resolution determines how sharp details on earth will be. But the maximum sharpness is not the only consideration. A trade-off must be made between the need to monitor large surfaces and the need to distinguish details. Weather satellites, for example, have a resolution of several kilometers. To meteorologists it is

more important to see how weather systems move over half the surface of the earth than to determine exactly what the clouds look like at a certain location.

Field Of Vision

With earth observation satellites, the problem is more difficult. As mentioned above, the two instruments on the SPOT satellite each have a field of vision of 60 km directly under the satellite. Together, with a 3 km overlap, they cover a path of just 117 km directly under the satellite. This is considered to be too small for surface monitoring.

But by angling the instruments away from the vertical line, the satellite can take pictures over a broader field. SPOT can cut out 60-km scenes from a path 950 km wide under the satellite. This ability to look to the side also reduces the time between opportunities to take pictures of the same area. To follow military developments, for example, it is desirable to take pictures of the same area at short intervals. How often pictures can be taken of a given site also depends on its geographic latitude. Since the satellite has a near-polar orbit, areas closer to the poles are within the satellite's range more often than those that are closer to the equator. SPOT can photograph an area near the equator every 3 days, large parts of Central Europe every other day, and the Arctic and Antarctic regions every day.

But this presupposes daylight and clear weather. Clouds and darkness prevent the satellite from seeing anything.

Radar

But this obstacle is being overcome by technical developments. Satellites that send radar waves to the earth's surface and record the reflected signals can penetrate both darkness and clouds.

This technology is still in the experimental stage, however. The problem is to obtain radar pictures with sufficient resolution. Synthetic apertures are used for this purpose in a technique called Synthetic Aperture Radar, or SAR. The European space organization plans to send up a radar satellite with SAR technology, the ERS-1, before 1990. This satellite would have a resolution of 30 meters. Canada also has plans for a radar satellite with a best resolution of 25 meters.

Tellus

Tellus is seen primarily as a system for monitoring and verification. This system may consist of one or more optical satellites with ground stations, data processing units, and interpretation organizations. It could also be complemented with a radar satellite.

The satellite itself and its instruments are based primarily on the technology used in the SPOT satellite. The resolution of 1.8 meters, compared to SPOT's 10 meters, is achieved by using a lower orbit than that of SPOT. It

would be placed at about 600 km. The field of vision straight down would be 18 km, but by angling the instrument up to 35 degrees from vertical, it would be possible to observe a path 870 km wide under the satellite.

The time between opportunities to photograph a given area would vary from 1 to 4 days. Two satellites would be needed to reduce this time to a maximum of 2 days.

Plans are to send the picture data directly to a ground station. In this way, pictures could be taken of sites within 2,200 km of the ground station. As a result, the satellites coverage area would depend entirely on the location of the ground stations.

If a recorder were to be placed in the satellite, then of course any area on earth could be observed. The Swedish proposal includes no recorders on board, however, primarily for diplomatic reasons, "to stress the regional character of the satellite."

The average number of scenes transmitted to earth each day would be 350. SPOT sends down 250. The data transmission rate will be 200 Mbaud, compared to 49.5 from SPOT. The satellite will move across the earth at a rate of 6,190 meters per second.

Its expected service life is 4 years, but most satellites have stayed up much longer than calculated. The cost is estimated at 2.5 billion Swedish kronor. In addition, operating costs would be 80 million per year.

If Tellus is complemented with a radar satellite, it would be an advanced version of the European Space Agency's (ESA) ERS-1 radar satellite. A satellite of this type would have a resolution of about 10 meters.

In Sweden

Sweden already has supermodern equipment and an advanced organization for receiving and processing picture data from satellites. Esrange outside Kiruna is a receiving station for most earth observation satellites, such as the American Landsat, the Japanese MOS, and the French-Swedish SPOT. Its northern location is highly advantageous for receiving signals.

Satellitbild in Kiruna, which has about 50 employees, converts picture data from SPOT to marketable satellite pictures. Of the approximately 500,000 SPOT scenes transmitted down every year, over half are received in Kiruna.

During the nuclear disaster in Chernobyl in 1986, the Swedish organization demonstrated that it could act quickly enough to meet the needs of the news media. The first published pictures of the damaged nuclear power plant were produced at Satellitbild in cooperation with Space Media Network.

If expanded, Esrange could serve as a station for monitoring the Tellus satellite and as a receiving station for its picture data. In order to process pictures from the Tellus data, Satellitbild's capacity would have to be almost doubled or a new organization of at least the same size as Satellitbild would have to be set up. The picture processing does not include interpretation. That would be done independently by various organizations.

Missiles In The Desert

Chinese medium-range missiles had been delivered secretly to the Saudis. The Chinese called the ballistic missile the East Wind, Dong Feng 3. The NATO designation was the CSS-2. It was the 1971 model, but it had probably been modernized.

In 1988 the world press found out that Saudi Arabia had supposedly purchased Chinese missiles. American Foreign Minister George Shultz expressed concern over the spread of Chinese missiles to the Middle East. But no reliable and precise information could be obtained in Washington or the Middle East on where the missiles were located.

Instead, the specific information came from Satellitbild in Kiruna. By comparing known information with SPOT pictures, Christer Larsson and Mats Thoren of the Space Media Network identified conceivable sites. Using these pictures two American photo interpreters, Mark Marshall and Bill Kennedy, concluded that they were at a military base near the oasis As Sulayyil.

Parts of the base had been recently rebuilt and the buildings and facilities seemed to be made for storing and testing missiles. A road from the oasis stopped after 30 km and continued as a gravel road into the barren desert. The pattern was typical of a deployment site for Dong Feng missiles.

In September Space Media Network gave the international press pictures of a probable site at which the Chinese missiles had been deployed in Saudi Arabia.

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